Cyclopedia Of Philosophy

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C O N T E N T S

A

Abortion

I. The Right to Life

It is a fundamental principle of most moral theories that all human beings have a right to life. The existence of a right implies obligations or duties of third parties towards the right-holder. One has a right AGAINST other people. The fact that one possesses a certain right - prescribes to others certain obligatory behaviours and proscribes certain acts or omissions. This Janus-like nature of rights and duties as two sides of the same ethical coin - creates great confusion. People often and easily confuse rights and their attendant duties or obligations with the morally decent, or even with the morally permissible. What one MUST do as a result of another's right - should never be confused with one SHOULD or OUGHT to do morally (in the absence of a right).

The right to life has eight distinct strains:

IA. The right to be brought to life

IB. The right to be born

IC. The right to have one's life maintained

ID. The right not to be killed

IE. The right to have one's life saved

IF. The right to save one's life (erroneously limited to the right to self-defence)

IG. The Right to terminate one's life

IH. The right to have one's life terminated

IA. The Right to be Brought to Life

Only living people have rights. There is a debate whether an egg is a living person - but there can be no doubt that it exists. Its rights - whatever they are - derive from the fact that it exists and that it has the potential to develop life. The right to be brought to life (the right to become or to be) pertains to a yet non-alive entity and, therefore, is null and void. Had this right existed, it would have implied an obligation or duty to give life to the unborn and the not yet conceived. No such duty or obligation exist.

IB. The Right to be Born

The right to be born crystallizes at the moment of voluntary and intentional fertilization. If a woman knowingly engages in sexual intercourse for the explicit and express purpose of having a child - then the resulting fertilized egg has a right to mature and be born. Furthermore, the born child has all the rights a child has against his parents: food, shelter, emotional nourishment, education, and so on.

It is debatable whether such rights of the fetus and, later, of the child, exist if the fertilization was either involuntary (rape) or unintentional ("accidental" pregnancies). It would seem that the fetus has a right to be kept alive outside the mother's womb, if possible. But it is not clear whether it has a right to go on using the mother's body, or resources, or to burden her in any way in order to sustain its own life (see IC below).

IC. The Right to have One's Life Maintained

Does one have the right to maintain one's life and prolong

them at other people's expense? Does one have the right to use other people's bodies, their property, their time, their resources and to deprive them of pleasure, comfort, material possessions, income, or any other thing?

The answer is yes and no.

No one has a right to sustain his or her life, maintain, or prolong them at another INDIVIDUAL's expense (no matter how minimal and insignificant the sacrifice required is). Still, if a contract has been signed - implicitly or explicitly - between the parties, then such a right may crystallize in the contract and create corresponding duties and obligations, moral, as well as legal.

Example:

No fetus has a right to sustain its life, maintain, or prolong them at his mother's expense (no matter how minimal and insignificant the sacrifice required of her is). Still, if she signed a contract with the fetus - by knowingly and willingly and intentionally conceiving it - such a right has crystallized and has created corresponding duties and obligations of the mother towards her fetus.

On the other hand, everyone has a right to sustain his or her life, maintain, or prolong them at SOCIETY's expense (no matter how major and significant the resources required are). Still, if a contract has been signed - implicitly or explicitly - between the parties, then the abrogation of such a right may crystallize in the contract and create corresponding duties and obligations, moral, as well as legal.

Example:

Everyone has a right to sustain his or her life, maintain, or

prolong them at society's expense. Public hospitals, state pension schemes, and police forces may be required to fulfill society's obligations - but fulfill them it must, no matter how major and significant the resources are. Still, if a person volunteered to join the army and a contract has been signed between the parties, then this right has been thus abrogated and the individual assumed certain duties and obligations, including the duty or obligation to give up his or her life to society.

ID. The Right not to be Killed

Every person has the right not to be killed unjustly. What constitutes "just killing" is a matter for an ethical calculus in the framework of a social contract.

But does A's right not to be killed include the right against third parties that they refrain from enforcing the rights of other people against A? Does A's right not to be killed preclude the righting of wrongs committed by A against others - even if the righting of such wrongs means the killing of A?

Not so. There is a moral obligation to right wrongs (to restore the rights of other people). If A maintains or prolongs his life ONLY by violating the rights of others and these other people object to it - then A must be killed if that is the only way to right the wrong and re-assert their rights.

IE. The Right to have One's Life Saved

There is no such right as there is no corresponding moral obligation or duty to save a life. This "right" is a demonstration of the aforementioned muddle between the morally commendable, desirable and decent ("ought", "should") and the morally obligatory, the result of other

people's rights ("must").

In some countries, the obligation to save life is legally codified. But while the law of the land may create a LEGAL right and corresponding LEGAL obligations - it does not always or necessarily create a moral or an ethical right and corresponding moral duties and obligations.

IF. The Right to Save One's Own Life

The right to self-defence is a subset of the more general and all-pervasive right to save one's own life. One has the right to take certain actions or avoid taking certain actions in order to save his or her own life.

It is generally accepted that one has the right to kill a pursuer who knowingly and intentionally intends to take one's life. It is debatable, though, whether one has the right to kill an innocent person who unknowingly and unintentionally threatens to take one's life.

IG. The Right to Terminate One's Life

See "The Murder of Oneself".

IH. The Right to Have One's Life Terminated

The right to euthanasia, to have one's life terminated at will, is restricted by numerous social, ethical, and legal rules, principles, and considerations. In a nutshell - in many countries in the West one is thought to has a right to have one's life terminated with the help of third parties if one is going to die shortly anyway and if one is going to be tormented and humiliated by great and debilitating agony for the rest of one's remaining life if not helped to die. Of course, for one's wish to be helped to die to be accommodated, one has to be in sound mind and to will

one's death knowingly, intentionally, and forcefully.

II. Issues in the Calculus of Rights

IIA. The Hierarchy of Rights

All human cultures have hierarchies of rights. These hierarchies reflect cultural mores and lores and there cannot, therefore, be a universal, or eternal hierarchy.

In Western moral systems, the Right to Life supersedes all other rights (including the right to one's body, to comfort, to the avoidance of pain, to property, etc.).

Yet, this hierarchical arrangement does not help us to resolve cases in which there is a clash of EQUAL rights (for instance, the conflicting rights to life of two people). One way to decide among equally potent claims is randomly (by flipping a coin, or casting dice). Alternatively, we could add and subtract rights in a somewhat macabre arithmetic. If a mother's life is endangered by the continued existence of a fetus and assuming both of them have a right to life we can decide to kill the fetus by adding to the mother's right to life her right to her own body and thus outweighing the fetus' right to life.

IIB. The Difference between Killing and Letting Die

There is an assumed difference between killing (taking life) and letting die (not saving a life). This is supported by IE above. While there is a right not to be killed - there is no right to have one's own life saved. Thus, while there is an obligation not to kill - there is no obligation to save a life.

IIC. Killing the Innocent

Often the continued existence of an innocent person (IP) threatens to take the life of a victim (V). By "innocent" we mean "not guilty" - not responsible for killing V, not intending to kill V, and not knowing that V will be killed due to IP's actions or continued existence.

It is simple to decide to kill IP to save V if IP is going to die anyway shortly, and the remaining life of V, if saved, will be much longer than the remaining life of IP, if not killed. All other variants require a calculus of hierarchically weighted rights. (See "Abortion and the Sanctity of Human Life" by Baruch A. Brody).

One form of calculus is the utilitarian theory. It calls for the maximization of utility (life, happiness, pleasure). In other words, the life, happiness, or pleasure of the many outweigh the life, happiness, or pleasure of the few. It is morally permissible to kill IP if the lives of two or more people will be saved as a result and there is no other way to save their lives. Despite strong philosophical objections to some of the premises of utilitarian theory - I agree with its practical prescriptions.

In this context - the dilemma of killing the innocent - one can also call upon the right to self defence. Does V have a right to kill IP regardless of any moral calculus of rights? Probably not. One is rarely justified in taking another's life to save one's own. But such behaviour cannot be condemned. Here we have the flip side of the confusion - understandable and perhaps inevitable behaviour (self defence) is mistaken for a MORAL RIGHT. That most V's would kill IP and that we would all sympathize with V and understand its behaviour does not mean that V had a RIGHT to kill IP. V may have had a right to kill IP - but this right is not automatic, nor is it all-encompassing.

III. Abortion and the Social Contract

The issue of abortion is emotionally loaded and this often makes for poor, not thoroughly thought out arguments. The questions: "Is abortion immoral" and "Is abortion a murder" are often confused. The pregnancy (and the resulting fetus) are discussed in terms normally reserved to natural catastrophes (force majeure). At times, the embryo is compared to cancer, a thief, or an invader: after all, they are both growths, clusters of cells. The difference, of course, is that no one contracts cancer willingly (except, to some extent, smokers -–but, then they gamble, not contract).

When a woman engages in voluntary sex, does not use contraceptives and gets pregnant – one can say that she signed a contract with her fetus. A contract entails the demonstrated existence of a reasonably (and reasonable) free will. If the fulfillment of the obligations in a contract between individuals could be life-threatening – it is fair and safe to assume that no rational free will was involved. No reasonable person would sign or enter such a contract with another person (though most people would sign such contracts with society).

Judith Jarvis Thomson argued convincingly ("A Defence of Abortion") that pregnancies that are the result of forced sex (rape being a special case) or which are life threatening should or could, morally, be terminated. Using the transactional language: the contract was not entered to willingly or reasonably and, therefore, is null and void. Any actions which are intended to terminate it and to annul its consequences should be legally and morally permissible.

The same goes for a contract which was entered into

against the express will of one of the parties and despite all the reasonable measures that the unwilling party adopted to prevent it. If a mother uses contraceptives in a manner intended to prevent pregnancy, it is as good as saying: " I do not want to sign this contract, I am doing my reasonable best not to sign it, if it is signed – it is contrary to my express will". There is little legal (or moral) doubt that such a contract should be voided.

Much more serious problems arise when we study the other party to these implicit agreements: the embryo. To start with, it lacks consciousness (in the sense that is needed for signing an enforceable and valid contract). Can a contract be valid even if one of the "signatories" lacks this sine qua non trait? In the absence of consciousness, there is little point in talking about free will (or rights which depend on sentience). So, is the contract not a contract at all? Does it not reflect the intentions of the parties?

The answer is in the negative. The contract between a mother and her fetus is derived from the larger Social Contract. Society – through its apparatuses – stands for the embryo the same way that it represents minors, the mentally retarded, and the insane. Society steps in – and has the recognized right and moral obligation to do so – whenever the powers of the parties to a contract (implicit or explicit) are not balanced. It protects small citizens from big monopolies, the physically weak from the thug, the tiny opposition from the mighty administration, the barely surviving radio station from the claws of the devouring state mechanism. It also has the right and obligation to intervene, intercede and represent the unconscious: this is why euthanasia is absolutely forbidden without the consent of the dying person. There

is not much difference between the embryo and the comatose.

A typical contract states the rights of the parties. It assumes the existence of parties which are "moral personhoods" or "morally significant persons" – in other words, persons who are holders of rights and can demand from us to respect these rights. Contracts explicitly elaborate some of these rights and leaves others unmentioned because of the presumed existence of the Social Contract. The typical contract assumes that there is a social contract which applies to the parties to the contract and which is universally known and, therefore, implicitly incorporated in every contract. Thus, an explicit contract can deal with the property rights of a certain person, while neglecting to mention that person's rights to life, to free speech, to the enjoyment the fruits of his lawful property and, in general to a happy life.

There is little debate that the Mother is a morally significant person and that she is a rights-holder. All born humans are and, more so, all adults above a certain age. But what about the unborn fetus?

One approach is that the embryo has no rights until certain conditions are met and only upon their fulfillment is he transformed into a morally significant person ("moral agent"). Opinions differ as to what are the conditions. Rationality, or a morally meaningful and valued life are some of the oft cited criteria. The fallaciousness of this argument is easy to demonstrate: children are irrational – is this a licence to commit infanticide?

A second approach says that a person has the right to life because it desires it.

But then what about chronic depressives who wish to die – do we have the right to terminate their miserable lives? The good part of life (and, therefore, the differential and meaningful test) is in the experience itself – not in the desire to experience.

Another variant says that a person has the right to life because once his life is terminated – his experiences cease. So, how should we judge the right to life of someone who constantly endures bad experiences (and, as a result, harbors a death wish)? Should he better be "terminated"?

Having reviewed the above arguments and counter-arguments, Don Marquis goes on (in "Why Abortion is Immoral", 1989) to offer a sharper and more comprehensive criterion: terminating a life is morally wrong because a person has a future filled with value and meaning, similar to ours.

But the whole debate is unnecessary. There is no conflict between the rights of the mother and those of her fetus because there is never a conflict between parties to an agreement. By signing an agreement, the mother gave up some of her rights and limited the others. This is normal practice in contracts: they represent compromises, the optimization (and not the maximization) of the parties' rights and wishes. The rights of the fetus are an inseparable part of the contract which the mother signed voluntarily and reasonably. They are derived from the mother's behaviour. Getting willingly pregnant (or assuming the risk of getting pregnant by not using contraceptives reasonably) – is the behaviour which validates and ratifies a contract between her and the fetus. Many contracts are by behaviour, rather than by a signed piece of paper. Numerous contracts are verbal or

behavioural. These contracts, though implicit, are as binding as any of their written, more explicit, brethren. Legally (and morally) the situation is crystal clear: the mother signed some of her rights away in this contract. Even if she regrets it – she cannot claim her rights back by annulling the contract unilaterally. No contract can be annulled this way – the consent of both parties is required. Many times we realize that we have entered a bad contract, but there is nothing much that we can do about it. These are the rules of the game.

Thus the two remaining questions: (a) can this specific contract (pregnancy) be annulled and, if so (b) in which circumstances – can be easily settled using modern contract law. Yes, a contract can be annulled and voided if signed under duress, involuntarily, by incompetent persons (e.g., the insane), or if one of the parties made a reasonable and full scale attempt to prevent its signature, thus expressing its clear will not to sign the contract. It is also terminated or voided if it would be unreasonable to expect one of the parties to see it through. Rape, contraception failure, life threatening situations are all such cases.

This could be argued against by saying that, in the case of economic hardship, f or instance, the damage to the mother's future is certain. True, her value- filled, meaningful future is granted – but so is the detrimental effect that the fetus will have on it, once born. This certainty cannot be balanced by the UNCERTAIN value-filled future life of the embryo. Always, preferring an uncertain good to a certain evil is morally wrong. But surely this is a quantitative matter – not a qualitative one. Certain, limited aspects of the rest of the mother's life will be adversely effected (and can be ameliorated by society's

helping hand and intervention) if she does have the baby. The decision not to have it is both qualitatively and qualitatively different. It is to deprive the unborn of all the aspects of all his future life – in which he might well have experienced happiness, values, and meaning.

The questions whether the fetus is a Being or a growth of cells, conscious in any manner, or utterly unconscious, able to value his life and to want them – are all but irrelevant. He has the potential to lead a happy, meaningful, value-filled life, similar to ours, very much as a one minute old baby does. The contract between him and his mother is a service provision contract. She provides him with goods and services that he requires in order to materialize his potential. It sounds very much like many other human contracts. And this contract continue well after pregnancy has ended and birth given.

Consider education: children do not appreciate its importance or value its potential – still, it is enforced upon them because we, who are capable of those feats, want them to have the tools that they will need in order to develop their potential. In this and many other respects, the human pregnancy continues well into the fourth year of life (physiologically it continues in to the second year of life - see "Born Alien"). Should the location of the pregnancy (in uterus, in vivo) determine its future? If a mother has the right to abort at will, why should the mother be denied her right to terminate the " pregnancy" AFTER the fetus emerges and the pregnancy continues OUTSIDE her womb? Even after birth, the woman's body is the main source of food to the baby and, in any case, she has to endure physical hardship to raise the child. Why not extend the woman's ownership of her body and right to it further in time and space to the post-natal

period?

Contracts to provide goods and services (always at a personal cost to the provider) are the commonest of contracts. We open a business. We sell a software application, we publish a book – we engage in helping others to materialize their potential. We should always do so willingly and reasonably – otherwise the contracts that we sign will be null and void. But to deny anyone his capacity to materialize his potential and the goods and services that he needs to do so – after a valid contract was entered into - is immoral. To refuse to provide a service or to condition it provision (Mother: " I will provide the goods and services that I agreed to provide to this fetus under this contract only if and when I benefit from such provision") is a violation of the contract and should be penalized. Admittedly, at times we have a right to choose to do the immoral (because it has not been codified as illegal) – but that does not turn it into moral.

Still, not every immoral act involving the termination of life can be classified as murder. Phenomenology is deceiving: the acts look the same (cessation of life functions, the prevention of a future). But murder is the intentional termination of the life of a human who possesses, at the moment of death, a consciousness (and, in most cases, a free will, especially the will not to die). Abortion is the intentional termination of a life which has the potential to develop into a person with consciousness and free will. Philosophically, no identity can be established between potential and actuality. The destruction of paints and cloth is not tantamount (not to say identical) to the destruction of a painting by Van Gogh, made up of these very elements. Paints and cloth are converted to a painting through the intermediacy and

agency of the Painter. A cluster of cells a human makes only through the agency of Nature. Surely, the destruction of the painting materials constitutes an offence against the Painter. In the same way, the destruction of the fetus constitutes an offence against Nature. But there is no denying that in both cases, no finished product was eliminated. Naturally, this becomes less and less so (the severity of the terminating act increases) as the process of creation advances.

Classifying an abortion as murder poses numerous and insurmountable philosophical problems.

No one disputes the now common view that the main crime committed in aborting a pregnancy – is a crime against potentialities. If so, what is the philosophical difference between aborting a fetus and destroying a sperm and an egg? These two contain all the information (=all the potential) and their destruction is philosophically no less grave than the destruction of a fetus. The destruction of an egg and a sperm is even more serious philosophically: the creation of a fetus limits the set of all potentials embedded in the genetic material to the one fetus created. The egg and sperm can be compared to the famous wave function (state vector) in quantum mechanics – the represent millions of potential final states (=millions of potential embryos and lives). The fetus is the collapse of the wave function: it represents a much more limited set of potentials. If killing an embryo is murder because of the elimination of potentials – how should we consider the intentional elimination of many more potentials through masturbation and contraception?

The argument that it is difficult to say which sperm cell will impregnate the egg is not serious. Biologically, it does not matter – they all carry the same genetic

content. Moreover, would this counter-argument still hold if, in future, we were be able to identify the chosen one and eliminate only it? In many religions (Catholicism) contraception is murder. In Judaism, masturbation is "the corruption of the seed" and such a serious offence that it is punishable by the strongest religious penalty: eternal ex-communication ("Karet").

If abortion is indeed murder how should we resolve the following moral dilemmas and questions (some of them patently absurd):

Is a natural abortion the equivalent of manslaughter (through negligence)?

Do habits like smoking, drug addiction, vegetarianism – infringe upon the right to life of the embryo? Do they constitute a violation of the contract?

Reductio ad absurdum: if, in the far future, research will unequivocally prove that listening to a certain kind of music or entertaining certain thoughts seriously hampers the embryonic development – should we apply censorship to the Mother?

Should force majeure clauses be introduced to the Mother-Embryo pregnancy contract? Will they give the mother the right to cancel the contract? Will the embryo have a right to terminate the contract? Should the asymmetry persist: the Mother will have no right to terminate – but the embryo will, or vice versa?

Being a rights holder, can the embryo (=the State) litigate against his Mother or Third Parties (the doctor that aborted him, someone who hit his mother and brought about a natural abortion) even after he died?

Should anyone who knows about an abortion be considered an accomplice to murder?

If abortion is murder – why punish it so mildly? Why is there a debate regarding this question? "Thou shalt not kill" is a natural law, it appears in virtually every legal system. It is easily and immediately identifiable. The fact that abortion does not "enjoy" the same legal and moral treatment says a lot.

Absence

That which does not exist - cannot be criticized. We can pass muster only on that which exists. When we say "this is missing" - we really mean to say: "there is something that IS NOT in this, which IS." Absence is discernible only against the background of existence. Criticism is aimed at changing. In other words, it relates to what is missing. But it is no mere sentence, or proposition. It is an assertion. It is goal-oriented. It strives to alter that which exists with regards to its quantity, its quality, its functions, or its program / vision. All these parameters of change cannot relate to absolute absence. They emanate from the existence of an entity. Something must exist as a precondition. Only then can criticism be aired: "(In that which exists), the quantity, quality, or functions are wrong, lacking, altogether missing".

The common error - that we criticize the absent - is the outcome of the use made of an ideal. We compare that which exists with a Platonic Idea or Form (which, according to modern thinking, does not REALLY exist). We feel that the criticism is the product not of the process of comparison - but of these ideal Ideas or Forms. Since they do not exist - the thing criticized is felt not to exist, either.

But why do we assign the critical act and its outcomes not to the real - but to the ideal? Because the ideal is judged to be preferable, superior, a criterion of measurement, a yardstick of perfection. Naturally, we will be inclined to regard it as the source, rather than as the by-product, or as the finished product (let alone as the raw material) of the critical process. To refute this intuitive assignment is easy: criticism is always quantitative. At the least, it can always be translated into quantitative measures, or expressed in quantitative-propositions. This is a trait of the real - never of the ideal. That which emanates from the ideal is not likely to be quantitative. Therefore, criticism must be seen to be the outcome of the interaction between the real and the ideal - rather than as the absolute emanation from either.

Achievement

If a comatose person were to earn an interest of 1 million USD annually on the sum paid to him as compensatory damages – would this be considered an achievement of his? To succeed to earn 1 million USD is universally judged to be an achievement. But to do so while comatose will almost as universally not be counted as one. It would seem that a person has to be both conscious and intelligent to have his achievements qualify.

Even these conditions, though necessary, are not sufficient. If a totally conscious (and reasonably intelligent) person were to accidentally unearth a treasure trove and thus be transformed into a multi-billionaire – his stumbling across a fortune will not qualify as an achievement. A lucky turn of events does not an achievement make. A person must be intent on achieving to have his deeds classified as achievements. Intention is a paramount criterion in the classification of events and

actions, as any intensionalist philosopher will tell you.

Supposing a conscious and intelligent person has the intention to achieve a goal. He then engages in a series of absolutely random and unrelated actions, one of which yields the desired result. Will we then say that our person is an achiever?

Not at all. It is not enough to intend. One must proceed to produce a plan of action, which is directly derived from the overriding goal. Such a plan of action must be seen to be reasonable and pragmatic and leading – with great probability – to the achievement. In other words: the plan must involve a prognosis, a prediction, a forecast, which can be either verified or falsified. Attaining an achievement involves the construction of an ad-hoc mini theory. Reality has to be thoroughly surveyed, models constructed, one of them selected (on empirical or aesthetic grounds), a goal formulated, an experiment performed and a negative (failure) or positive (achievement) result obtained. Only if the prediction turns out to be correct can we speak of an achievement.

Our would-be achiever is thus burdened by a series of requirements. He must be conscious, must possess a well-formulated intention, must plan his steps towards the attainment of his goal, and must correctly predict the results of his actions.

But planning alone is not sufficient. One must carry out one's plan of action (from mere plan to actual action). An effort has to be seen to be invested (which must be commensurate with the achievement sought and with the qualities of the achiever). If a person consciously intends to obtain a university degree and constructs a plan of action, which involves bribing the professors into

conferring one upon him – this will not be considered an achievement. To qualify as an achievement, a university degree entails a continuous and strenuous effort. Such an effort is commensurate with the desired result. If the person involved is gifted – less effort will be expected of him. The expected effort is modified to reflect the superior qualities of the achiever. Still, an effort, which is deemed to be inordinately or irregularly small (or big!) will annul the standing of the action as an achievement. Moreover, the effort invested must be seen to be continuous, part of an unbroken pattern, bounded and guided by a clearly defined, transparent plan of action and by a declared intention. Otherwise, the effort will be judged to be random, devoid of meaning, haphazard, arbitrary, capricious, etc. – which will erode the achievement status of the results of the actions. This, really, is the crux of the matter: the results are much less important than the coherent, directional, patterns of action. It is the pursuit that matters, the hunt more than the game and the game more than victory or gains. Serendipity cannot underlie an achievement.

These are the internal-epistemological-cognitive determinants as they are translated into action. But whether an event or action is an achievement or not also depends on the world itself, the substrate of the actions.

An achievement must bring about change. Changes occur or are reported to have occurred – as in the acquisition of knowledge or in mental therapy where we have no direct observational access to the events and we have to rely on testimonials. If they do not occur (or are not reported to have occurred) – there would be no meaning to the word achievement. In an entropic, stagnant world – no achievement is ever possible. Moreover: the mere

occurrence of change is grossly inadequate. The change must be irreversible or, at least, induce irreversibility, or have irreversible effects. Consider Sisyphus: forever changing his environment (rolling that stone up the mountain slope). He is conscious, is possessed of intention, plans his actions and diligently and consistently carries them out. He is always successful at achieving his goals. Yet, his achievements are reversed by the spiteful gods. He is doomed to forever repeat his actions, thus rendering them meaningless. Meaning is linked to irreversible change, without it, it is not to be found. Sisyphean acts are meaningless and Sisyphus has no achievements to talk about.

Irreversibility is linked not only to meaning, but also to free will and to the lack of coercion or oppression. Sisyphus is not his own master. He is ruled by others. They have the power to reverse the results of his actions and, thus, to annul them altogether. If the fruits of our labour are at the mercy of others – we can never guarantee their irreversibility and, therefore, can never be sure to achieve anything. If we have no free will – we can have no real plans and intentions and if our actions are determined elsewhere – their results are not ours and nothing like achievement exists but in the form of self delusion.

We see that to amply judge the status of our actions and of their results, we must be aware of many incidental things. The context is critical: what were the circumstances, what could have been expected, what are the measures of planning and of intention, of effort and of perseverance which would have "normally" been called for, etc. Labelling a complex of actions and results "an achievement" requires social judgement and social

recognition. Take breathing: no one considers this to be an achievement unless Stephen Hawking is involved. Society judges the fact that Hawking is still (mentally and sexually) alert to be an outstanding achievement. The sentence: "an invalid is breathing" would be categorized as an achievement only by informed members of a community and subject to the rules and the ethos of said community. It has no "objective" or ontological weight.

Events and actions are classified as achievements, in other words, as a result of value judgements within given historical, psychological and cultural contexts. Judgement has to be involved: are the actions and their results negative or positive in the said contexts. Genocide, for instance, would have not qualified as an achievement in the USA – but it would have in the ranks of the SS. Perhaps to find a definition of achievement which is independent of social context would be the first achievement to be considered as such anywhere, anytime, by everyone.

Affiliation and Morality

The Anglo-Saxon members of the motley "Coalition of the Willing" were proud of their aircraft's and missiles' "surgical" precision. The legal (and moral) imperative to spare the lives of innocent civilians was well observed, they bragged. "Collateral damage" was minimized. They were lucky to have confronted a dilapidated enemy. Precision bombing is expensive, in terms of lives - of fighter pilots. Military planners are well aware that there is a hushed trade-off between civilian and combatant casualties.

This dilemma is both ethical and practical. It is often "resolved" by applying - explicitly or implicitly - the

principle of "over-riding affiliation". As usual, Judaism was there first, agonizing over similar moral conflicts. Two Jewish sayings amount to a reluctant admission of the relativity of moral calculus: "One is close to oneself" and "Your city's poor denizens come first (with regards to charity)".

One's ***proper*** conduct, in other words, is decided by one's self-interest and by one's affiliations. Affiliation (to a community, or a fraternity), in turn, is determined by one's positions and, more so, perhaps, by one's oppositions.

What are these "positions" and "oppositions"?

The most fundamental position - from which all others are derived - is the positive statement "I am a human being". Belonging to the human race is an immutable and inalienable position. Denying this leads to horrors such as the Holocaust. The Nazis did not regard as humans the Jews, the Slavs, homosexuals, and other minorities - so they sought to exterminate them.

All other, synthetic, positions are made of couples of positive and negative statements with the structure "I am ***and*** I am not".

But there is an important asymmetry at the heart of this neat arrangement.

The negative statements in each couple are fully derived from - and thus are entirely dependent on and implied by - the positive statements. Not so the positive statements. They cannot be derived from, or be implied by, the negative one.

Lest we get distractingly abstract, let us consider an example.

Study the couple "I am an Israeli" and "I am not a Syrian".

Assuming that there are 220 countries and territories, the positive statement "I am an Israeli" implies about 220 ***certain*** (true) negative statements. You can derive each and every one of these negative statements from the positive statement. You can thus create 220 perfectly valid couples.

"I am an Israeli ..."

Therefore:

"I am not ... (a citizen of country X, which is not Israel)".

You can safely derive the true statement "I am not a Syrian" from the statement "I am an Israeli".

Can I derive the statement "I am an Israeli" from the statement "I am not a Syrian"?

Not with any certainty.

The negative statement "I am not a Syrian" implies 220 ***possible*** positive statements of the type "I am ... (a citizen of country X, which is not India)", including the statement "I am an Israeli". "I am not a Syrian and I am a citizen of ... (220 possibilities)"

Negative statements can be derived with certainty from any positive statement.

Negative statements as well as positive statements cannot be derived with certainty from any negative statement.

This formal-logical trait reflects a deep psychological reality with unsettling consequences.

A positive statement about one's affiliation ("I am an Israeli") immediately generates 220 certain ***negative*** statements (such as "I am not a Syrian").

One's positive self-definition automatically excludes all others by assigning to them negative values. ***"I am"*** always goes with ***"I am not".***

The positive self-definitions of others, in turn, negate one's self-definition.

Statements about one's affiliation are inevitably exclusionary.

It is possible for many people to share the same positive self-definition. About 6 million people can truly say "I am an Israeli".

Affiliation - to a community, fraternity, nation, state, religion, or team - is really a positive statement of self-definition ("I am an Israeli", for instance) shared by all the affiliated members (the affiliates).

One's moral obligations towards one's affiliates override and supersede one's moral obligations towards non-affiliated humans.

Thus, an American's moral obligation to safeguard the lives of American fighter pilots overrides and supersedes (subordinates) his moral obligation to save the lives of innocent civilians, however numerous, if they are not Americans.

The larger the number of positive self-definitions I share with someone (i.e., the more affiliations we have in common) , the larger and more overriding is my moral obligation to him or her.

Example:

I have moral obligations towards all other humans because I share with them my affiliation to the human species.

But my moral obligations towards my countrymen supersede these obligation. I share with my compatriots two affiliations rather than one. We are all members of the human race - but we are also citizens of the same state.

This patriotism, in turn, is superseded by my moral obligation towards the members of my family. With them I share a third affiliation - we are all members of the same clan.

I owe the utmost to myself. With myself I share all the aforementioned affiliations plus one: the affiliation to the one member club that is me.

But this scheme raises some difficulties.

We postulated that the strength of one's moral obligations towards other people is determined by the number of positive self-definitions ("affiliations") he shares with them.

Moral obligations are, therefore, contingent. They are, indeed, the outcomes of interactions with others - but not in the immediate sense, as the personalist philosopher Emmanuel Levinas suggested.

Rather, ethical principles, rights, and obligations are merely the solutions yielded by a moral calculus of shared affiliations. Think about them as matrices with specific moral values and obligations attached to the numerical strengths of one's affiliations.

Some moral obligations are universal and are the outcomes of one's organic position as a human being (the "basic affiliation"). These are the "transcendent moral values".

Other moral values and obligations arise only as the number of shared affiliations increases. These are the "derivative moral values".

Moreover, it would wrong to say that moral values and obligations "accumulate", or that the more fundamental ones are the strongest.

On the very contrary. The universal ethical principles - the ones related to one's position as a human being - are the ***weakest***. They are subordinate to derivative moral values and obligations yielded by one's affiliations.

The universal imperative "thou shall not kill (another human being)" is easily over-ruled by the moral obligation to kill for one's country. The imperative "though shall not steal" is superseded by one's moral obligation to spy for one's nation. Treason is when we prefer universal ethical principles to derivatives ones, dictated by our affiliation (citizenship).

This leads to another startling conclusion:

There is no such thing as a self-consistent moral system. Moral values and obligations often contradict and conflict with each other.

In the examples above, killing (for one's country) and stealing (for one's nation) are moral obligations, the outcomes of the application of derivative moral values. Yet, they contradict the universal moral value of the sanctity of life and property and the universal moral

obligation not to kill.

Hence, killing the non-affiliated (civilians of another country) to defend one's own (fighter pilots) is morally justified. It violates some fundamental principles - but upholds higher moral obligations, to one's kin and kith.

Note - The Exclusionary Conscience

The self-identity of most nation-states is exclusionary and oppositional: to generate solidarity, a sense of shared community, and consensus, an ill-defined "we" is unfavorably contrasted with a fuzzy "they". While hate speech has been largely outlawed the world over, these often counterfactual dichotomies between "us" and "them" still reign supreme.

In extreme - though surprisingly frequent - cases, whole groups (typically minorities) are excluded from the nation's moral universe and from the ambit of civil society. Thus, they are rendered "invisible", "subhuman", and unprotected by laws, institutions, and ethics. This process of distancing and dehumanization I call "exclusionary conscience".

The most recent examples are the massacre of the Tutsis in Rwanda, the Holocaust of the Jews in Nazi Germany's Third Reich, and the Armenian Genocide in Turkey. Radical Islamists are now advocating the mass slaughter of Westerners, particularly of Americans and Israelis, regardless of age, gender, and alleged culpability. But the phenomenon of exclusionary conscience far predates these horrendous events. In the Bible, the ancient Hebrews are instructed to exterminate all Amalekites, men, women, and children.

In her book, "The Nazi Conscience", Claudia Koontz

quotes from Freud's "Civilization and its Discontents":

"If (the Golden Rule of morality) commanded 'Love thy neighbor as thy neighbor loves thee', I should not take exception to it. If he is a stranger to me ... it will be hard for me to love him." (p. 5)

Agent-Principal Problem

In the catechism of capitalism, shares represent the part-ownership of an economic enterprise, usually a firm. The value of shares is determined by the replacement value of the assets of the firm, including intangibles such as goodwill. The price of the share is determined by transactions among arm's length buyers and sellers in an efficient and liquid market. The price reflects expectations regarding the future value of the firm and the stock's future stream of income - i.e., dividends.

Alas, none of these oft-recited dogmas bears any resemblance to reality. Shares rarely represent ownership. The float - the number of shares available to the public - is frequently marginal. Shareholders meet once a year to vent and disperse. Boards of directors are appointed by management - as are auditors. Shareholders are not represented in any decision making process - small or big.

The dismal truth is that shares reify the expectation to find future buyers at a higher price and thus incur capital gains. In the Ponzi scheme known as the stock exchange, this expectation is proportional to liquidity - new suckers - and volatility. Thus, the price of any given stock reflects merely the consensus as to how easy it would be to offload one's holdings and at what price.

Another myth has to do with the role of managers. They

are supposed to generate higher returns to shareholders by increasing the value of the firm's assets and, therefore, of the firm. If they fail to do so, goes the moral tale, they are booted out mercilessly. This is one manifestation of the "Principal-Agent Problem". It is defined thus by the Oxford Dictionary of Economics:

"The problem of how a person A can motivate person B to act for A's benefit rather than following (his) self-interest."

The obvious answer is that A can never motivate B not to follow B's self-interest - never mind what the incentives are. That economists pretend otherwise - in "optimal contracting theory" - just serves to demonstrate how divorced economics is from human psychology and, thus, from reality.

Managers will always rob blind the companies they run. They will always manipulate boards to collude in their shenanigans. They will always bribe auditors to bend the rules. In other words, they will always act in their self-interest. In their defense, they can say that the damage from such actions to each shareholder is minuscule while the benefits to the manager are enormous. In other words, this is the rational, self-interested, thing to do.

But why do shareholders cooperate with such corporate brigandage? In an important Chicago Law Review article whose preprint was posted to the Web a few weeks ago - titled "Managerial Power and Rent Extraction in the Design of Executive Compensation" - the authors demonstrate how the typical stock option granted to managers as part of their remuneration rewards mediocrity rather than encourages excellence.

But everything falls into place if we realize that shareholders and managers are allied against the firm - not pitted against each other. The paramount interest of both shareholders and managers is to increase the value of the stock - regardless of the true value of the firm. Both are concerned with the performance of the share - rather than the performance of the firm. Both are preoccupied with boosting the share's price - rather than the company's business.

Hence the inflationary executive pay packets. Shareholders hire stock manipulators - euphemistically known as "managers" - to generate expectations regarding the future prices of their shares. These snake oil salesmen and snake charmers - the corporate executives - are allowed by shareholders to loot the company providing they generate consistent capital gains to their masters by provoking persistent interest and excitement around the business. Shareholders, in other words, do not behave as owners of the firm - they behave as free-riders.

The Principal-Agent Problem arises in other social interactions and is equally misunderstood there. Consider taxpayers and their government. Contrary to conservative lore, the former want the government to tax them providing they share in the spoils. They tolerate corruption in high places, cronyism, nepotism, inaptitude and worse - on condition that the government and the legislature redistribute the wealth they confiscate. Such redistribution often comes in the form of pork barrel projects and benefits to the middle-class.

This is why the tax burden and the government's share of GDP have been soaring inexorably with the consent of the citizenry. People adore government spending precisely because it is inefficient and distorts the proper allocation

of economic resources. The vast majority of people are rent-seekers. Witness the mass demonstrations that erupt whenever governments try to slash expenditures, privatize, and eliminate their gaping deficits. This is one reason the IMF with its austerity measures is universally unpopular.

Employers and employees, producers and consumers - these are all instances of the Principal-Agent Problem. Economists would do well to discard their models and go back to basics. They could start by asking:

Why do shareholders acquiesce with executive malfeasance as long as share prices are rising?

Why do citizens protest against a smaller government - even though it means lower taxes?

Could it mean that the interests of shareholders and managers are identical? Does it imply that people prefer tax-and-spend governments and pork barrel politics to the Thatcherite alternative?

Nothing happens by accident or by coercion. Shareholders aided and abetted the current crop of corporate executives enthusiastically. They knew well what was happening. They may not have been aware of the exact nature and extent of the rot - but they witnessed approvingly the public relations antics, insider trading, stock option resetting , unwinding, and unloading, share price manipulation, opaque transactions, and outlandish pay packages. Investors remained mum throughout the corruption of corporate America. It is time for the hangover.

Althusser – See: Interpellation

Anarchism

"The thin and precarious crust of decency is all that separates any civilization, however impressive, from the hell of anarchy or systematic tyranny which lie in wait beneath the surface."

Aldous Leonard Huxley (1894-1963), British writer

I. Overview of Theories of Anarchism

Politics, in all its forms, has failed. The notion that we can safely and successfully hand over the management of our daily lives and the setting of priorities to a political class or elite is thoroughly discredited. Politicians cannot be trusted, regardless of the system in which they operate. No set of constraints, checks, and balances, is proved to work and mitigate their unconscionable acts and the pernicious effects these have on our welfare and longevity.

Ideologies - from the benign to the malign and from the divine to the pedestrian - have driven the gullible human race to the verge of annihilation and back. Participatory democracies have degenerated everywhere into venal plutocracies. Socialism and its poisoned fruits - Marxism-Leninism, Stalinism, Maoism - have wrought misery on a scale unprecedented even by medieval standards. Only Fascism and Nazism compare with them unfavorably. The idea of the nation-state culminated in the Yugoslav succession wars.

It is time to seriously consider a much-derided and decried alternative: anarchism.

Anarchism is often mistaken for left-wing thinking or the advocacy of anarchy. It is neither. If anything, the

libertarian strain in anarchism makes it closer to the right. Anarchism is an umbrella term covering disparate social and political theories - among them classic or cooperative anarchism (postulated by William Godwin and, later, Pierre Joseph Proudhon), radical individualism (Max Stirner), religious anarchism (Leo Tolstoy), anarcho-communism (Kropotkin) and anarcho-syndicalism, educational anarchism (Paul Goodman), and communitarian anarchism (Daniel Guerin).

The narrow (and familiar) form of political anarchism springs from the belief that human communities can survive and thrive through voluntary cooperation, without a coercive central government. Politics corrupt and subvert Man's good and noble nature. Governments are instruments of self-enrichment and self-aggrandizement, and the reification and embodiment of said subversion.

The logical outcome is to call for the overthrow of all political systems, as Michael Bakunin suggested. Governments should therefore be opposed by any and all means, including violent action. What should replace the state? There is little agreement among anarchists: biblical authority (Tolstoy), self-regulating co-opertaives of craftsmen (Proudhon), a federation of voluntary associations (Bakunin), trade unions (anarcho-syndicalists), ideal communism (Kropotkin).

What is common to this smorgasbord is the affirmation of freedom as the most fundamental value. Justice, equality, and welfare cannot be sustained without it. The state and its oppressive mechanisms is incompatible with it. Figures of authority and the ruling classes are bound to abuse their remit and use the instruments of government to further and enforce their own interests. The state is conceived and laws are enacted for this explicit purpose of gross and

unjust exploitation. The state perpetrates violence and is the cause rather than the cure of most social ills.

Anarchists believe that human beings are perfectly capable of rational self-government. In the Utopia of anarchism, individuals choose to belong to society (or to exclude themselves from it). Rules are adopted by agreement of all the members/citizens through direct participation in voting. Similar to participatory democracy, holders of offices can be recalled by constituents.

It is important to emphasize that:

" ... (A)narchism does not preclude social organization, social order or rules, the appropriate delegation of authority, or even of certain forms of government, as long as this is distinguished from the state and as long as it is administrative and not oppressive, coercive, or bureaucratic."

(Honderich, Ted, ed. - The Oxford Companion to Philosophy - Oxford University Press, New York, 1995 - p. 31)

Anarchists are not opposed to organization, law and order, or the existence of authority. They are against the usurpation of power by individuals or by classes (groups) of individuals for personal gain through the subjugation and exploitation (however subtle and disguised) of other, less fortunate people. Every social arrangement and institution should be put to the dual acid tests of personal autonomy and freedom and moral law. If it fails either of the two it should be promptly abolished.

II. Contradictions in Anarchism

Anarchism is not prescriptive. Anarchists believe that the voluntary members of each and every society should decide the details of the order and functioning of their own community. Consequently, anarchism provides no coherent recipe on how to construct the ideal community. This, of course, is its Achilles' heel.

Consider crime. Anarchists of all stripes agree that people have the right to exercise self-defense by organizing voluntarily to suppress malfeasance and put away criminals. Yet, is this not the very quiddity of the oppressive state, its laws, police, prisons, and army? Are the origins of the coercive state and its justification not firmly rooted in the need to confront evil?

Some anarchists believe in changing society through violence. Are these anarcho-terrorists criminals or freedom fighters? If they are opposed by voluntary grassroots (vigilante) organizations in the best of anarchist tradition - should they fight back and thus frustrate the authentic will of the people whose welfare they claim to be seeking?

Anarchism is a chicken and egg proposition. It is predicated on people's well-developed sense of responsibility and grounded in their "natural morality". Yet, all anarchists admit that these endowments are decimated by millennia of statal repression. Life in anarchism is, therefore, aimed at restoring the very preconditions to life in anarchism. Anarchism seeks to restore its constituents' ethical constitution - without which there can be no anarchism in the first place. This self-defeating bootstrapping leads to convoluted and half-baked transitory phases between the nation-state and pure anarchism (hence anarcho-syndicalism and some forms of proto-Communism).

Primitivist and green anarchists reject technology, globalization, and capitalism as well as the state. Yet, globalization, technology, (and capitalism) are as much in opposition to the classical, hermetic nation-state as is philosophical anarchism. They are manifestly less coercive and more voluntary, too. This blanket defiance of everything modern introduces insoluble contradictions into the theory and practice of late twentieth century anarchism.

Indeed, the term anarchism has been trivialized and debauched. Animal rights activists, environmentalists, feminists, peasant revolutionaries, and techno-punk performers all claim to be anarchists with equal conviction and equal falsity.

III. Reclaiming Anarchism

Errico Malatesta and Voltairine de Cleyre distilled the essence of anarchism to encompass all the philosophies that oppose the state and abhor capitalism ("anarchism without adjectives"). At a deeper level, anarchism wishes to identify and rectify social asymmetries. The state, men, and the rich - are, respectively, more powerful than the individuals, women, and the poor. These are three inequalities out of many. It is the task of anarchism to fight against them.

This can be done in either of two ways:

1. By violently dismantling existing structures and institutions and replacing them with voluntary, self-regulating organizations of free individuals. The Zapatistas movement in Mexico is an attempt to do just that.

2. Or, by creating voluntary, self-regulating organizations

of free individuals whose functions parallel those of established hierarchies and institutions ("dual power"). Gradually, the former will replace the latter. The evolution of certain non-government organizations follows this path.

Whichever strategy is adopted, it is essential to first identify those asymmetries that underlie all others ("primary asymmetries" vs. "secondary asymmetries"). Most anarchists point at the state and at the ownership of property as the primary asymmetries. The state is an asymmetrical transfer of power from the individual to a coercive and unjust social hyperstructure. Property represents the disproportionate accumulation of wealth by certain individuals. Crime is merely the natural reaction to these glaring injustices.

But the state and property are secondary asymmetries, not primary ones. There have been periods in human history and there have been cultures devoid of either or both. The primary asymmetry seems to be natural: some people are born more clever and stronger than others. The game is skewed in their favor not because of some sinister conspiracy but because they merit it (meritocracy is the foundation stone of capitalism), or because they can force themselves, their wishes, and their priorities and preferences on others, or because their adherents and followers believe that rewarding their leaders will maximize their own welfare (aggression and self-interest are the cornerstone of all social organizations).

It is this primary asymmetry that anarchism must address.

Anarchy (as Organizing Principle)

The recent spate of accounting fraud scandals signals the end of an era. Disillusionment and disenchantment with

American capitalism may yet lead to a tectonic ideological shift from laissez faire and self regulation to state intervention and regulation. This would be the reversal of a trend dating back to Thatcher in Britain and Reagan in the USA. It would also cast some fundamental - and way more ancient - tenets of free-marketry in grave doubt.

Markets are perceived as self-organizing, self-assembling, exchanges of information, goods, and services. Adam Smith's "invisible hand" is the sum of all the mechanisms whose interaction gives rise to the optimal allocation of economic resources. The market's great advantages over central planning are precisely its randomness and its lack of self-awareness.

Market participants go about their egoistic business, trying to maximize their utility, oblivious of the interests and action of all, bar those they interact with directly. Somehow, out of the chaos and clamor, a structure emerges of order and efficiency unmatched. Man is incapable of intentionally producing better outcomes. Thus, any intervention and interference are deemed to be detrimental to the proper functioning of the economy.

It is a minor step from this idealized worldview back to the Physiocrats, who preceded Adam Smith, and who propounded the doctrine of "laissez faire, laissez passer" - the hands-off battle cry. Theirs was a natural religion. The market, as an agglomeration of individuals, they thundered, was surely entitled to enjoy the rights and freedoms accorded to each and every person. John Stuart Mill weighed against the state's involvement in the economy in his influential and exquisitely-timed "Principles of Political Economy", published in 1848.

Undaunted by mounting evidence of market failures - for instance to provide affordable and plentiful public goods - this flawed theory returned with a vengeance in the last two decades of the past century. Privatization, deregulation, and self-regulation became faddish buzzwords and part of a global consensus propagated by both commercial banks and multilateral lenders.

As applied to the professions - to accountants, stock brokers, lawyers, bankers, insurers, and so on - self-regulation was premised on the belief in long-term self-preservation. Rational economic players and moral agents are supposed to maximize their utility in the long-run by observing the rules and regulations of a level playing field.

This noble propensity seemed, alas, to have been tampered by avarice and narcissism and by the immature inability to postpone gratification. Self-regulation failed so spectacularly to conquer human nature that its demise gave rise to the most intrusive statal stratagems ever devised. In both the UK and the USA, the government is much more heavily and pervasively involved in the minutia of accountancy, stock dealing, and banking than it was only two years ago.

But the ethos and myth of "order out of chaos" - with its proponents in the exact sciences as well - ran deeper than that. The very culture of commerce was thoroughly permeated and transformed. It is not surprising that the Internet - a chaotic network with an anarchic modus operandi - flourished at these times.

The dotcom revolution was less about technology than about new ways of doing business - mixing umpteen irreconcilable ingredients, stirring well, and hoping for the

best. No one, for instance, offered a linear revenue model of how to translate "eyeballs" - i.e., the number of visitors to a Web site - to money ("monetizing"). It was dogmatically held to be true that, miraculously, traffic - a chaotic phenomenon - will translate to profit - hitherto the outcome of painstaking labour.

Privatization itself was such a leap of faith. State owned assets - including utilities and suppliers of public goods such as health and education - were transferred wholesale to the hands of profit maximizers. The implicit belief was that the price mechanism will provide the missing planning and regulation. In other words, higher prices were supposed to guarantee an uninterrupted service. Predictably, failure ensued - from electricity utilities in California to railway operators in Britain.

The simultaneous crumbling of these urban legends - the liberating power of the Net, the self-regulating markets, the unbridled merits of privatization - inevitably gave rise to a backlash.

The state has acquired monstrous proportions in the decades since the Second world War. It is about to grow further and to digest the few sectors hitherto left untouched. To say the least, these are not good news. But we libertarians - proponents of both individual freedom and individual responsibility - have brought it on ourselves by thwarting the work of that invisible regulator - the market.

Anger

Anger is a compounded phenomenon. It has dispositional properties, expressive and motivational components, situational and individual variations, cognitive and

excitatory interdependent manifestations and psychophysiological (especially neuroendocrine) aspects. From the psychobiological point of view, it probably had its survival utility in early evolution, but it seems to have lost a lot of it in modern societies. Actually, in most cases it is counterproductive, even dangerous. Dysfunctional anger is known to have pathogenic effects (mostly cardiovascular).

Most personality disordered people are prone to be angry. Their anger is always sudden, raging, frightening and without an apparent provocation by an outside agent. It would seem that people suffering from personality disorders are in a CONSTANT state of anger, which is effectively suppressed most of the time. It manifests itself only when the person's defences are down, incapacitated, or adversely affected by circumstances, inner or external. We have pointed at the psychodynamic source of this permanent, bottled-up anger, elsewhere in this book. In a nutshell, the patient was, usually, unable to express anger and direct it at "forbidden" targets in his early, formative years (his parents, in most cases). The anger, however, was a justified reaction to abuses and mistreatment. The patient was, therefore, left to nurture a sense of profound injustice and frustrated rage. Healthy people experience anger, but as a transitory state. This is what sets the personality disordered apart: their anger is always acute, permanently present, often suppressed or repressed. Healthy anger has an external inducing agent (a reason). It is directed at this agent (coherence).

Pathological anger is neither coherent, not externally induced. It emanates from the inside and it is diffuse, directed at the "world" and at "injustice" in general. The patient does identify the IMMEDIATE cause of the anger.

Still, upon closer scrutiny, the cause is likely to be found lacking and the anger excessive, disproportionate, incoherent. To refine the point: it might be more accurate to say that the personality disordered is expressing (and experiencing) TWO layers of anger, simultaneously and always. The first layer, the superficial anger, is indeed directed at an identified target, the alleged cause of the eruption. The second layer, however, is anger directed at himself. The patient is angry at himself for being unable to vent off normal anger, normally. He feels like a miscreant. He hates himself. This second layer of anger also comprises strong and easily identifiable elements of frustration, irritation and annoyance.

While normal anger is connected to some action regarding its source (or to the planning or contemplation of such action) – pathological anger is mostly directed at oneself or even lacks direction altogether. The personality disordered are afraid to show that they are angry to meaningful others because they are afraid to lose them. The Borderline Personality Disordered is terrified of being abandoned, the narcissist (NPD) needs his Narcissistic Supply Sources, the Paranoid – his persecutors and so on. These people prefer to direct their anger at people who are meaningless to them, people whose withdrawal will not constitute a threat to their precariously balanced personality. They yell at a waitress, berate a taxi driver, or explode at an underling. Alternatively, they sulk, feel anhedonic or pathologically bored, drink or do drugs – all forms of self-directed aggression. From time to time, no longer able to pretend and to suppress, they have it out with the real source of their anger. They rage and, generally, behave like lunatics. They shout incoherently, make absurd accusations, distort facts, pronounce allegations and suspicions. These episodes are followed

by periods of saccharine sentimentality and excessive flattering and submissiveness towards the victim of the latest rage attack. Driven by the mortal fear of being abandoned or ignored, the personality disordered debases and demeans himself to the point of provoking repulsion in the beholder. These pendulum-like emotional swings make life with the personality disordered difficult.

Anger in healthy persons is diminished through action. It is an aversive, unpleasant emotion. It is intended to generate action in order to eradicate this uncomfortable sensation. It is coupled with physiological arousal. But it is not clear whether action diminishes anger or anger is used up in action. Similarly, it is not clear whether the consciousness of anger is dependent on a stream of cognition expressed in words? Do we become angry because we say that we are angry (=we identify the anger and capture it) – or do we say that we are angry because we are angry to start with?

Anger is induced by numerous factors. It is almost a universal reaction. Any threat to one's welfare (physical, emotional, social, financial, or mental) is met with anger. But so are threats to one's affiliates, nearest, dearest, nation, favourite football club, pet and so on. The territory of anger is enlarged to include not only the person – but all his real and perceived environment, human and non-human. This does not sound like a very adaptative strategy. Threats are not the only situations to be met with anger. Anger is the reaction to injustice (perceived or real), to disagreements, to inconvenience. But the two main sources of anger are threat (a disagreement is potentially threatening) and injustice (inconvenience is injustice inflicted on the angry person by the world).

These are also the two sources of personality disorders.

The personality disordered is moulded by recurrent and frequent injustice and he is constantly threatened both by his internal and by his external universes. No wonder that there is a close affinity between the personality disordered and the acutely angry person.

And, as opposed to common opinion, the angry person becomes angry whether he believes that what was done to him was deliberate or not. If we lose a precious manuscript, even unintentionally, we are bound to become angry at ourselves. If his home is devastated by an earthquake – the owner will surely rage, though no conscious, deliberating mind was at work. When we perceive an injustice in the distribution of wealth or love – we become angry because of moral reasoning, whether the injustice was deliberate or not. We retaliate and we punish as a result of our ability to morally reason and to get even. Sometimes even moral reasoning is lacking, as in when we simply wish to alleviate a diffuse anger.

What the personality disordered does is: he suppresses the anger, but he has no effective mechanisms of redirecting it in order to correct the inducing conditions. His hostile expressions are not constructive – they are destructive because they are diffuse, excessive and, therefore, unclear. He does not lash out at people in order to restore his lost self-esteem, his prestige, his sense of power and control over his life, to recover emotionally, or to restore his well being. He rages because he cannot help it and is in a self-destructive and self-loathing mode. His anger does not contain a signal, which could alter his environment in general and the behaviour of those around him, in particular. His anger is primitive, maladaptive, pent up.

Anger is a primitive, limbic emotion. Its excitatory components and patterns are shared with sexual excitation

and with fear. It is cognition that guides our behaviour, aimed at avoiding harm and aversion or at minimising them. Our cognition is in charge of attaining certain kinds of mental gratification. An analysis of future values of the relief-gratification versus repercussions (reward to risk) ratio – can be obtained only through cognitive tools. Anger is provoked by aversive treatment, deliberately or unintentionally inflicted. Such treatment must violate either prevailing conventions regarding social interactions or some otherwise deeply ingrained sense of what is fair and what is just. The judgement of fairness or justice (namely, the appraisal of the extent of compliance with conventions of social exchange) – is also cognitive.

The angry person and the personality disordered both suffer from a cognitive deficit. They are unable to conceptualise, to design effective strategies and to execute them. They dedicate all their attention to the immediate and ignore the future consequences of their actions. In other words, their attention and information processing faculties are distorted, skewed in favour of the here and now, biased on both the intake and the output. Time is "relativistically dilated" – the present feels more protracted, "longer" than any future. Immediate facts and actions are judged more relevant and weighted more heavily than any remote aversive conditions. Anger impairs cognition.

The angry person is a worried person. The personality disordered is also excessively preoccupied with himself. Worry and anger are the cornerstones of the edifice of anxiety. This is where it all converges: people become angry because they are excessively concerned with bad things which might happen to them. Anger is a result of anxiety (or, when the anger is not acute, of fear).

The striking similarity between anger and personality disorders is the deterioration of the faculty of empathy. Angry people cannot empathise. Actually, "counter-empathy" develops in a state of acute anger. All mitigating circumstances related to the source of the anger – are taken as meaning to devalue and belittle the suffering of the angry person. His anger thus increases the more mitigating circumstances are brought to his attention. Judgement is altered by anger. Later provocative acts are judged to be more serious – just by "virtue" of their chronological position. All this is very typical of the personality disordered. An impairment of the empathic sensitivities is a prime symptom in many of them (in the Narcissistic, Antisocial, Schizoid and Schizotypal Personality Disordered, to mention but four).

Moreover, the aforementioned impairment of judgement (=impairment of the proper functioning of the mechanism of risk assessment) appears in both acute anger and in many personality disorders. The illusion of omnipotence (power) and invulnerability, the partiality of judgement – are typical of both states. Acute anger (rage attacks in personality disorders) is always incommensurate with the magnitude of the source of the emotion and is fuelled by extraneous experiences. An acutely angry person usually reacts to an ACCUMULATION, an amalgamation of aversive experiences, all enhancing each other in vicious feedback loops, many of them not directly related to the cause of the specific anger episode. The angry person may be reacting to stress, agitation, disturbance, drugs, violence or aggression witnessed by him, to social or to national conflict, to elation and even to sexual excitation. The same is true of the personality disordered. His inner world is fraught with unpleasant, ego-dystonic, discomfiting, unsettling, worrisome experiences. His

external environment – influenced and moulded by his distorted personality – is also transformed into a source of aversive, repulsive, or plainly unpleasant experiences. The personality disordered explodes in rage – because he implodes AND reacts to outside stimuli, simultaneously. Because he is a slave to magical thinking and, therefore, regards himself as omnipotent, omniscient and protected from the consequences of his own acts (immune) – the personality disordered often acts in a self-destructive and self-defeating manner. The similarities are so numerous and so striking that it seems safe to say that the personality disordered is in a constant state of acute anger.

Finally, acutely angry people perceive anger to have been the result of intentional (or circumstantial) provocation with a hostile purpose (by the target of their anger). Their targets, on the other hand, invariably regard them as incoherent people, acting arbitrarily, in an unjustified manner.

Replace the words "acutely angry" with the words "personality disordered" and the sentence would still remain largely valid.

Animal Rights

According to MSNBC, in a May 2005 Senate hearing, John Lewis, the FBI's deputy assistant director for counterterrorism, asserted that "environmental and animal rights extremists who have turned to arson and explosives are the nation's top domestic terrorism threat ... Groups such as the Animal Liberation Front, the Earth Liberation Front and the Britain-based SHAC, or Stop Huntingdon Animal Cruelty, are 'way out in front' in terms of damage and number of crimes ...". Lewis averred that " ... (t)here is nothing else going on in this country over the last

several years that is racking up the high number of violent crimes and terrorist actions".

MSNBC notes that "(t)he Animal Liberation Front says on its Web site that its small, autonomous groups of people take 'direct action' against animal abuse by rescuing animals and causing financial loss to animal exploiters, usually through damage and destruction of property."

"Animal rights" is a catchphrase akin to "human rights". It involves, however, a few pitfalls. First, animals exist only as a concept. Otherwise, they are cuddly cats, curly dogs, cute monkeys. A rat and a puppy are both animals but our emotional reaction to them is so different that we cannot really lump them together. Moreover: what rights are we talking about? The right to life? The right to be free of pain? The right to food? Except the right to free speech – all other rights could be applied to animals.

Law professor Steven Wise, argues in his book, "Drawing the Line: Science and the Case for Animal Rights", for the extension to animals of legal rights accorded to infants. Many animal species exhibit awareness, cognizance and communication skills typical of human toddlers and of humans with arrested development. Yet, the latter enjoy rights denied the former.

According to Wise, there are four categories of practical autonomy - a legal standard for granting "personhood" and the rights it entails. Practical autonomy involves the ability to be desirous, to intend to fulfill and pursue one's desires, a sense of self-awareness, and self-sufficiency. Most animals, says Wise, qualify. This may be going too far. It is easier to justify the moral rights of animals than their legal rights.

But when we say "animals", what we really mean is non-

human organisms. This is such a wide definition that it easily pertains to extraterrestrial aliens. Will we witness an Alien Rights movement soon? Unlikely. Thus, we are forced to narrow our field of enquiry to non-human organisms reminiscent of humans, the ones that provoke in us empathy.

Even this is way too fuzzy. Many people love snakes, for instance, and deeply empathize with them. Could we accept the assertion (avidly propounded by these people) that snakes ought to have rights – or should we consider only organisms with extremities and the ability to feel pain?

Historically, philosophers like Kant (and Descartes, Malebranche, and Aquinas) rejected the idea of animal rights. They regarded animals as the organic equivalents of machines, driven by coarse instincts, unable to experience pain (though their behavior sometimes deceives us into erroneously believing that they do).

Thus, any ethical obligation that we have towards animals is a derivative of our primary obligation towards our fellow humans (the only ones possessed of moral significance). These are called the theories of indirect moral obligations. Thus, it is wrong to torture animals only because it desensitizes us to human suffering and makes us more prone to using violence on humans. Malebranche augmented this line of thinking by "proving" that animals cannot suffer pain because they are not descended from Adam. Pain and suffering, as we all know, are the exclusive outcomes of Adam's sins.

Kant and Malebranche may have been wrong. Animals may be able to suffer and agonize. But how can we tell whether another Being is truly suffering pain or not?

Through empathy. We postulate that - since that Being resembles us – it must have the same experiences and, therefore, it deserves our pity.

Yet, the principle of resemblance has many drawbacks.

One, it leads to moral relativism.

Consider this maxim from the Jewish Talmud: "Do not do unto thy friend that which you hate". An analysis of this sentence renders it less altruistic than it appears. We are encouraged to refrain from doing only those things that ***WE*** find hateful. This is the quiddity of moral relativism.

The saying implies that it is the individual who is the source of moral authority. Each and every one of us is allowed to spin his own moral system, independent of others. The Talmudic dictum establishes a privileged moral club (very similar to later day social contractarianism) comprised of oneself and one's friend(s). One is encouraged not to visit evil upon one's friends, all others seemingly excluded. Even the broadest interpretation of the word "friend" could only read: "someone like you" and substantially excludes strangers.

Two, similarity is a structural, not an essential, trait.

Empathy as a differentiating principle is structural: if X looks like me and behaves like me – then he is privileged. Moreover, similarity is not necessarily identity. Monkeys, dogs and dolphins are very much like us, both structurally and behaviorally. Even according to Wise, it is quantity (the degree of observed resemblance), not quality (identity, essence), that is used in determining whether an animal is worthy of holding rights, whether is it a morally significant person. The degree of figurative and functional likenesses decide whether one deserves to live, pain-free

and happy.

The quantitative test includes the ability to communicate (manipulate vocal-verbal-written symbols within structured symbol systems). Yet, we ignore the fact that using the same symbols does not guarantee that we attach to them the same cognitive interpretations and the same emotional resonance ('private languages"). The same words, or symbols, often have different meanings.

Meaning is dependent upon historical, cultural, and personal contexts. There is no telling whether two people mean the same things when they say "red", or "sad", or "I", or "love". That another organism looks like us, behaves like us and communicates like us is no guarantee that it is - in its essence - like us. This is the subject of the famous Turing Test: there is no effective way to distinguish a machine from a human when we rely exclusively on symbol manipulation.

Consider pain once more.

To say that something does not experience pain cannot be rigorously defended. Pain is a subjective experience. There is no way to prove or to disprove that someone is or is not in pain. Here, we can rely only on the subject's reports. Moreover, even if we were to have an analgometer (pain gauge), there would have been no way to show that the phenomenon that activates the meter is one and the same ***for all subjects, SUBJECTIVELY***, i.e., that it is experienced in the same way by all the subjects examined.

Even more basic questions regarding pain are impossible to answer: What is the connection between the piercing needle and the pain ***REPORTED*** and between these two

and electrochemical patterns of activity in the brain? A correlation between these three phenomena can be established – but not their identity or the existence of a causative process. We cannot prove that the waves in the subject's brain when he reports pain – ***ARE*** that pain. Nor can we show that they ***CAUSED*** the pain, or that the pain caused them.

It is also not clear whether our moral percepts are conditioned on the objective existence of pain, on the reported existence of pain, on the purported existence of pain (whether experienced or not, whether reported or not), or on some independent laws.

If it were painless, would it be moral to torture someone? Is the very act of sticking needles into someone immoral – or is it immoral because of the pain it causes, or supposed to inflict? Are all three components (needle sticking, a sensation of pain, brain activity) morally equivalent? If so, is it as immoral to merely generate the same patterns of brain activity, without inducing any sensation of pain and without sticking needles in the subject?

If these three phenomena are not morally equivalent – why aren't they? They are, after all, different facets of the very same pain – shouldn't we condemn all of them equally? Or should one aspect of pain (the subject's report of pain) be accorded a privileged treatment and status?

Yet, the subject's report is the weakest proof of pain! It cannot be verified. And if we cling to this descriptive-behavioural-phenomenological definition of pain than animals qualify as well. They also exhibit all the behaviours normally ascribed to humans in pain and they report feeling pain (though they do tend to use a more limited and non-verbal vocabulary).

Pain is, therefore, a value judgment and the reaction to it is culturally dependent. In some cases, pain is perceived as positive and is sought. In the Aztec cultures, being chosen to be sacrificed to the Gods was a high honour. How would we judge animal rights in such historical and cultural contexts? Are there any "universal" values or does it all really depend on interpretation?

If we, humans, cannot separate the objective from the subjective and the cultural – what gives us the right or ability to decide for other organisms? We have no way of knowing whether pigs suffer pain. We cannot decide right and wrong, good and evil for those with whom we can communicate, let alone for organisms with which we fail to do even this.

Is it ***GENERALLY*** immoral to kill, to torture, to pain? The answer seems obvious and it automatically applies to animals. Is it generally immoral to destroy? Yes, it is and this answer pertains to the inanimate as well. There are exceptions: it is permissible to kill and to inflict pain in order to prevent a (quantitatively or qualitatively) greater evil, to protect life, and when no reasonable and feasible alternative is available.

The chain of food in nature is morally neutral and so are death and disease. Any act which is intended to sustain life of a higher order (and a higher order in life) – is morally positive or, at least neutral. Nature decreed so. Animals do it to other animals – though, admittedly, they optimize their consumption and avoid waste and unnecessary pain. Waste and pain are morally wrong. This is not a question of hierarchy of more or less important Beings (an outcome of the fallacy of anthropomorphesizing Nature).

The distinction between what is (essentially) ***US*** – and what just looks and behaves like us (but is ***NOT*** us) is false, superfluous and superficial. Sociobiology is already blurring these lines. Quantum Mechanics has taught us that we can say nothing about what the world really ***IS***. If things look the same and behave the same, we better assume that they are the same.

The attempt to claim that moral responsibility is reserved to the human species is self defeating. If it is so, then we definitely have a moral obligation towards the weaker and meeker. If it isn't, what right do we have to decide who shall live and who shall die (in pain)?

The increasingly shaky "fact" that species do not interbreed "proves" that species are distinct, say some. But who can deny that we share most of our genetic material with the fly and the mouse? We are not as dissimilar as we wish we were. And ever-escalating cruelty towards other species will not establish our genetic supremacy - merely our moral inferiority.

Anthropy

The Second Law of Thermodynamics predicts the gradual energetic decay of physical closed systems ("entropy"). Arguably, the Universe as a whole is precisely such a system.

Locally, though, order is often fighting disorder for dominance. In other words, in localized, open systems, order sometimes tends to increase and, by definition, statistical entropy tends to decrease. This is the orthodoxy. Personally, I believe otherwise.

Some physical systems increase disorder, either by

decaying or by actively spreading disorder onto other systems. Such vectors we call "Entropic Agents".

Conversely, some physical systems increase order or decrease disorder either in themselves or in their environment. We call these vectors "Negentropic Agents".

Human Beings are Negentropic Agents gone awry. Now, through its excesses, Mankind is slowly being transformed into an Entropic Agent.

Antibiotics, herbicides, insecticides, pollution, deforestation, etc. are all detrimental to the environment and reduce the amount of order in the open system that is Earth.

Nature must balance this shift of allegiance, this deviation from equilibrium, by constraining the number of other Entropic Agents on Earth – or by reducing the numbers of humans.

To achieve the latter (which is the path of least resistance and a typical self-regulatory mechanism), Nature causes humans to begin to internalize and assimilate the Entropy that they themselves generate. This is done through a series of intricate and intertwined mechanisms:

The Malthusian Mechanism – Limited resources lead to wars, famine, diseases and to a decrease in the populace (and, thus, in the number of human Entropic Agents).

The Assimilative Mechanism – Diseases, old and new, and other phenomena yield negative demographic effects directly related to the entropic actions of humans.

Examples: excessive use of antibiotics leads to drug-resistant strains of pathogens, cancer is caused by

pollution, heart ailments are related to modern Western diet, AIDS, avian flu, SARS, and other diseases are a result of hitherto unknown or mutated strains of viruses.

The Cognitive Mechanism – Humans limit their own propagation, using "rational", cognitive arguments, devices, and procedures: abortion, birth control, the pill.

Thus, combining these three mechanisms, nature controls the damage and disorder that Mankind spreads and restores equilibrium to the terrestrial ecosystem.

Appendix - Order and the Universe

Earth is a complex, orderly, and open system. If it were an intelligent being, we would have been compelled to say that it had "chosen" to preserve and locally increase form (structure), order and complexity.

This explains why evolution did not stop at the protozoa level. After all, these mono-cellular organisms were (and still are, hundreds of millions of years later) superbly adapted to their environment. It was Bergson who posed the question: why did nature prefer the risk of unstable complexity over predictable and reliable and durable simplicity?

The answer seems to be that Nature has a predilection (not confined to the biological realm) to increase complexity and order and that this principle takes precedence over "utilitarian" calculations of stability. The battle between the entropic arrow and the negentropic one is more important than any other (in-built) "consideration". Time and the Third Law of Thermodynamics are pitted against Life (as an integral and ubiquitous part of the Universe) and Order (a systemic, extensive parameter) against Disorder.

In this context, natural selection is no more "blind" or "random" than its subjects. It is discriminating, encourages structure, complexity and order. The contrast that Bergson stipulated between Natural Selection and Élan Vitale is misplaced: Natural Selection ***IS*** the vital power itself.

Modern Physics is converging with Philosophy (possibly with the philosophical side of Religion as well) and the convergence is precisely where concepts of order and disorder emerge. String theories, for instance, come in numerous versions which describe many possible different worlds (though, admittedly, they may all be facets of the same Being - distant echoes of the new versions of the Many Worlds Interpretation of Quantum Mechanics).

Still, why do we, intelligent conscious observers, see (why are we exposed to) only one kind of world? How is our world as we know it "selected"? The Universe is constrained in this "selection process" by its own history, but its history is not synonymous with the Laws of Nature. We know that the latter determine the former - but did the former also determine the latter? In other words: were the Laws of Nature "selected" as well and, if so, how?

The answer seems self evident: the Universe "selected" both the Natural Laws and, as a result, its own history, in a process akin to Natural Selection. Whatever increased order, complexity, and structure - survived. Our Universe - having itself survived - must be have been naturally selected.

We can assume that only order-increasing Universes do not succumb to entropy and death (the weak hypothesis). It could even be argued (as we do here) that our Universe

is the only possible kind of Universe (the semi-strong hypothesis) or even the only Universe (the strong hypothesis). This is the essence of the Anthropic Principle.

By definition, universal rules pervade all the realms of existence. Biological systems obey the same order-increasing (natural) laws as do physical and social ones. We are part of the Universe in the sense that we are subject to the same discipline and adhere to the same "religion". We are an inevitable result - not a chance happening.

We are the culmination of orderly processes - not the outcome of random events. The Universe enables us and our world because - and only for as long as - we increase order. That is not to imply that there is an "intention" involved on the part of the Universe (or the existence of a "higher being" or a "higher power"). There is no conscious or God-like spirit. All I am saying is that a system founded on order as a fundamental principle will tend to favor order and opt for it, to proactively select its proponents and deselect its opponents, and to give birth to increasingly more sophisticated weapons in the pro-order arsenal. We, humans, were such an order-increasing weapon until recently.

These intuitive assertions can be easily converted into a formalism. In Quantum Mechanics, the State Vector can be constrained to collapse to the most order-enhancing event. If we had a computer the size of the Universe that could infallibly model it, we would have been able to predict which events will increase order in the Universe overall. These, then, would be the likeliest events.

It is easy to prove that events follow a path of maximum

order, simply because the world is orderly and getting ever more so. Had this not been the case, statistically evenly-scattered events would have led to an increase in entropy (thermodynamic laws are the offspring of statistical mechanics). But this simply does not happen.

And it is wrong to think that order increases only in isolated "pockets", in local regions of our universe.

It is increasing everywhere, all the time, on all scales of measurement. Therefore, we are forced to conclude that quantum events are guided by some non-random principle (such as the increase in order). This, exactly, is the case in biology. There is no reason in principle why not to construct a life wavefunction which will always collapse to the most order increasing event. If we were to construct and apply this wave function to our world - we, humans, would probably have found ourselves as one of the events selected by its collapse.

Appendix - Live and Let Live, Nature's Message

Both now-discarded Lamarckism (the supposed inheritance of acquired characteristics) and Evolution Theory postulate that function determines form. Natural selection rewards those forms best suited to carry out the function of survival ("survival of the fittest") in each and every habitat (through the mechanism of adaptive radiation).

But whose survival is natural selection concerned with? Is it the survival of the individual? Of the species? Of the habitat or ecosystem? These three - individual, species, habitat - are not necessarily compatible or mutually reinforcing in their goals and actions.

If we set aside the dewy-eyed arguments of altruism, we

are compelled to accept that individual survival sometimes threatens and endangers the survival of the species (for instance, if the individual is sick, weak, or evil). As every environmental scientist can attest, the thriving of some species puts at risk the existence of whole habitats and ecological niches and leads other species to extinction.

To prevent the potential excesses of egotistic self-propagation, survival is self-limiting and self-regulating. Consider epidemics: rather than go on forever, they abate after a certain number of hosts have been infected. It is a kind of Nash equilibrium. Macroevolution (the coordinated emergence of entire groups of organisms) trumps microevolution (the selective dynamics of species, races, and subspecies) every time.

This delicate and self-correcting balance between the needs and pressures of competing populations is manifest even in the single organism or species. Different parts of the phenotype invariably develop at different rates, thus preventing an all-out scramble for resources and maladaptive changes. This is known as "mosaic evolution". It is reminiscent of the "invisible hand of the market" that allegedly allocates resources optimally among various players and agents.

Moreover, evolution favors organisms whose rate of reproduction is such that their populations expand to no more than the number of individuals that the habitat can support (the habitat's carrying capacity). These are called K-selection species, or K-strategists and are considered the poster children of adaptation.

Live and let live is what evolution is all about - not the law of the jungle. The survival of all the species that are

fit to survive is preferred to the hegemony of a few rapacious, highly-adapted, belligerent predators. Nature is about compromise, not about conquest.

Anti-Semitism

Rabid anti-Semitism, coupled with inane and outlandish conspiracy theories of world dominion, is easy to counter and dispel. It is the more "reasoned", subtle, and stealthy variety that it pernicious. "No smoke without fire," - say people - "there must be something to it!".

In this dialog I try to deconstruct a "mild" anti-Semitic text. I myself wrote the text - not an easy task considering my ancestry (a Jew) and my citizenship (an Israeli). But to penetrate the pertinent layers - historical, psychological, semantic, and semiotic - I had to "enter the skin" of "rational", classic anti-Semites, to grasp what makes them click and tick, and to think and reason like them.

I dedicated the last few months to ploughing through reams of anti-Semitic tracts and texts. Steeped in more or less nauseating verbal insanity and sheer paranoia, I emerged to compose the following.

The Anti-Semite:

The rising tide of anti-Semitism the world over is universally decried. The proponents of ant-Semitism are cast as ignorant, prejudiced, lawless, and atavistic. Their arguments are dismissed off-handedly.

But it takes one Jew to really know another. Conditioned by millennia of persecution, Jews are paranoid, defensive, and obsessively secretive. It is impossible for a gentile - whom they hold to be inferior and reflexively hostile - to penetrate their counsels.

Let us examine anti-Semitic arguments more closely and in an unbiased manner:

Argument number one - ***Being Jewish is a racial distinction - not only a religious one***

If race is defined in terms of genetic purity, then Jews are as much a race as the remotest and most isolated of the tribes of the Amazon. Genetic studies revealed that Jews throughout the world - largely due to centuries of in-breeding - share the same genetic makeup. Hereditary diseases which afflict only the Jews attest to the veracity of this discovery.

Judaism is founded on shared biology as much as shared history and customs. As a religion, it proscribes a conjugal union with non-Jews. Jews are not even allowed to partake the food and wine of gentiles and have kept their distance from the communities which they inhabited - maintaining tenaciously, through countless generations, their language, habits, creed, dress, and national ethos. Only Jews become automatic citizens of Israel (the infamous Law of Return).

The Jewish Response:

Race has been invariably used as an argument against the Jews. It is ironic that racial purists have always been the most fervent anti-Semites. Jews are not so much a race as a community, united in age-old traditions and beliefs, lore and myths, history and language. Anyone can become a Jew by following a set of clear (though, admittedly, demanding) rules. There is absolutely no biological test or restriction on joining the collective that is known as the Jewish people or the religion that is Judaism.

It is true that some Jews are differentiated from their

gentile environments. But this distinction has largely been imposed on us by countless generations of hostile hosts and neighbors. The yellow Star of David was only the latest in a series of measures to isolate the Jews, clearly mark them, restrict their economic and intellectual activities, and limit their social interactions. The only way to survive was to stick together. Can you blame us for responding to what you yourselves have so enthusiastically instigated?

The Anti-Semite:

Argument number two - ***The Jews regard themselves as Chosen, Superior, or Pure***

Vehement protestations to the contrary notwithstanding - this is largely true. Orthodox Jews and secular Jews differ, of course, in their perception of this supremacy. The religious attribute it to divine will, intellectuals to the outstanding achievements of Jewish scientists and scholars, the modern Israeli is proud of his invincible army and thriving economy. But they all share a sense of privilege and commensurate obligation to civilize their inferiors and to spread progress and enlightenment wherever they are. This is a pernicious rendition of the colonial White Man's Burden and it is coupled with disdain and contempt for the lowly and the great unwashed (namely, the gentiles).

The Jewish Response:

There were precious few Jews among the great colonizers and ideologues of imperialism (Disraeli being the exception). Moreover, to compare the dissemination of knowledge and enlightenment to colonialism is, indeed, a travesty.

We, the Jews, are proud of our achievements. Show me one group of people (including the anti-Semites) who isn't? But there is an abyss between being justly proud of one's true accomplishments and feeling superior as a result. Granted, there are narcissists and megalomaniacs everywhere and among the members of any human collective. Hitler and his Aryan superiority is a good example.

The Anti-Semite:

Argument number three - ***Jews have divided loyalties***

It is false to say that Jews are first and foremost Jews and only then are they the loyal citizens of their respective countries. Jews have unreservedly fought and sacrificed in the service of their homelands, often killing their coreligionists in the process. But it is true that Jews believe that what is good for the Jews is good for the country they reside in. By aligning the interests of their adopted habitat with their narrower and selfish agenda, Jews feel justified to promote their own interests to the exclusion of all else and all others.

Moreover, the rebirth of the Jewish State presented the Jews with countless ethical dilemmas which they typically resolved by adhering uncritically to Tel-Aviv's official line. This often brought them into direct conflict with their governments and non-Jewish compatriots and enhanced their reputation as untrustworthy and treacherous.

Hence the Jewish propensity to infiltrate decision-making centers, such as politics and the media. Their aim is to minimize conflicts of interests by transforming their peculiar concerns and preferences into official, if not always consensual, policy. This viral hijacking of the host

country's agenda is particularly evident in the United States where the interest of Jewry and of the only superpower have become inextricable.

It is a fact - not a rant - that Jews are over-represented in certain, influential, professions (in banking, finance, the media, politics, the film industry, publishing, science, the humanities, etc.). This is partly the result of their emphases on education and social upward mobility. But it is also due to the tendency of well-placed Jews to promote their brethren and provide them with privileged access to opportunities, funding, and jobs.

The Jewish Response:

Most modern polities are multi-ethnic and multi-cultural (an anathema to anti-Semites, I know). Every ethnic, religious, cultural, political, intellectual, and economic or business group tries to influence policy-making by various means. This is both legitimate and desirable. Lobbying has been an integral and essential part of democracy since it was invented in Athens 2500 years ago. The Jews and Israelis are no exception.

Jews are, indeed, over-represented in certain professions in the United States. But they are under-represented in other, equally important, vocations (for instance, among company CEOs, politicians, diplomats, managers of higher education institutions, and senior bankers). Globally, Jews are severely under-represented or not-existent in virtually all professions due to their demography (aging population, low birth-rates, unnatural deaths in wars and slaughters).

The Anti-Semite:

Argument number four - ***Jews act as a cabal or mafia***

There is no organized, hierarchical, and centralized worldwide Jewish conspiracy. Rather the Jews act in a manner similar to al-Qaida: they freelance and self-assemble ad hoc in cross-border networks to tackle specific issues. Jewish organizations - many in cahoots with the Israeli government - serve as administrative backup, same as some Islamic charities do for militant Islam. The Jews' ability and readiness to mobilize and act to further their plans is a matter of record and the source of the inordinate influence of their lobby organizations in Washington, for instance.

When two Jews meet, even randomly, and regardless of the disparities in their background, they immediately endeavor to see how they can further each other's interests, even and often at the expense of everyone else's.

Still, the Jewish diaspora, now two millennia old, is the first truly global phenomenon in world affairs. Bound by a common history, a common set of languages, a common ethos, a common religion, common defenses and ubiquitous enemies - Jews learned to closely cooperate in order to survive.

No wonder that all modern global networks - from Rothschild to Reuters - were established by Jews. Jews also featured prominently in all the revolutionary movements of the past three centuries. Individual Jews - though rarely the Jewish community as a whole - seem to benefit no matter what.

When Czarist Russia collapsed, Jews occupied 7 out of 10 prominent positions in both the Kerensky (a Jew himself) government and in the Lenin and early Stalin administrations. When the Soviet Union crumbled, Jews again benefited mightily. Three quarters of the famous

"oligarchs" (robber barons) that absconded with the bulk of the defunct empire's assets were - you guessed it - Jews.

The Jewish Response:

Ignoring the purposefully inflammatory language for a minute, what group does not behave this way? Harvard alumni, the British Commonwealth, the European Union, the Irish or the Italians in the United States, political parties the world over ... As long as people co-operate legally and for legal ends, without breaching ethics and without discriminating against deserving non-members - what is wrong with that?

The Anti-Semite:

Argument number five - ***The Jews are planning to take over the world and establish a world government***

This is the kind of nonsense that discredits a serious study of the Jews and their role in history, past and present. Endless lists of prominent people of Jewish descent are produced in support of the above contention. Yet, governments are not the mere sum of their constituent individuals. The dynamics of power subsist on more than the religious affiliation of office-holders, kingmakers, and string-pullers.

Granted, Jews are well introduced in the echelons of power almost everywhere. But this is still a very far cry from a world government. Neither were Jews prominent in any of the recent moves - mostly by the Europeans - to strengthen the role of international law and attendant supranational organizations.

The Jewish Response:

What can I say? I agree with you. I would only like to set the record straight by pointing out the fact that Jews are actually under-represented in the echelons of power everywhere (including in the United States). Only in Israel - where they constitute an overwhelming majority - do Jews run things.

The Anti-Semite:

Argument number six - ***Jews are selfish, narcissistic, haughty, double-faced, dissemblers. Zionism is an extension of this pathological narcissism as a colonial movement***

Judaism is not missionary. It is elitist. But Zionism has always regarded itself as both a (19th century) national movement ***and*** a (colonial) civilizing force. Nationalist narcissism transformed Zionism into a mission of acculturation ("White Man's Burden").

In "Altneuland" (translated to Hebrew as "Tel Aviv"), the feverish tome composed by Theodore Herzl, Judaism's improbable visionary - Herzl refers to the Arabs as pliant and compliant butlers, replete with gloves and tarbushes. In the book, a German Jewish family prophetically lands at Jaffa, the only port in erstwhile Palestine. They are welcomed and escorted by "Briticized" Arab gentlemen's gentlemen who are only too happy to assist their future masters and colonizers to disembark.

This age-old narcissistic defence - the Jewish superiority complex - was only exacerbated by the Holocaust.

Nazism posed as a rebellion against the "old ways" - against the hegemonic culture, the upper classes, the established religions, the superpowers, the European order. The Nazis borrowed the Leninist vocabulary and

assimilated it effectively. Hitler and the Nazis were an adolescent movement, a reaction to narcissistic injuries inflicted upon a narcissistic (and rather psychopathic) toddler nation-state. Hitler himself was a malignant narcissist, as Fromm correctly noted.

The Jews constituted a perfect, easily identifiable, embodiment of all that was "wrong" with Europe. They were an old nation, they were eerily disembodied (without a territory), they were cosmopolitan, they were part of the establishment, they were "decadent", they were hated on religious and socio-economic grounds (see Goldhagen's "Hitler's Willing Executioners"), they were different, they were narcissistic (felt and acted as morally superior), they were everywhere, they were defenseless, they were credulous, they were adaptable (and thus could be co-opted to collaborate in their own destruction). They were the perfect hated father figure and parricide was in fashion.

The Holocaust was a massive trauma ***not*** because of its dimensions - but because ***Germans***, the epitome of Western civilization, have turned on the Jews, the self-proclaimed missionaries of Western civilization in the Levant and Arabia. It was the betrayal that mattered. Rejected by East (as colonial stooges) and West (as agents of racial contamination) alike - the Jews resorted to a series of narcissistic responses reified by the State of Israel.

The long term occupation of territories (metaphorical or physical) is a classic narcissistic behavior (of "annexation" of the other). The Six Days War was a war of self defence - but the swift victory only exacerbated the grandiose fantasies of the Jews. Mastery over the Palestinians became an important component in the

psychological makeup of the nation (especially the more rightwing and religious elements) because it constitutes "Narcissistic Supply".

The Jewish Response:

Happily, sooner or later most anti-Semitic arguments descend into incoherent diatribe. This dialog is no exception.

Zionism was not conceived out of time. It was born in an age of colonialism, Kipling's "white man's burden", and Western narcissism. Regrettably, Herzl did not transcend the political discourse of his period. But Zionism is far more than Altneuland. Herzl died in 1904, having actually been deposed by Zionists from Russia who espoused ideals of equality for all, Jews and non-Jews alike.

The Holocaust was an enormous trauma and a clarion call. It taught the Jews that they cannot continue with their historically abnormal existence and that all the formulas for accommodation and co-existence failed. There remained only one viable solution: a Jewish state as a member of the international community of nations.

The Six Days War was, indeed, a classic example of preemptive self-defense. Its outcomes, however, deeply divide Jewish communities everywhere, especially in Israel. Many of us believe that occupation corrupts and reject the Messianic and millennial delusions of some Jews as dangerous and nefarious.

Perhaps this is the most important thing to remember:

Like every other group of humans, though molded by common experience, Jews are not a monolith. There are liberal Jews and orthodox Jews, narcissists and altruists,

unscrupulous and moral, educated and ignorant, criminals and law-abiding citizens. Jews, in other words, are like everyone else. Can we say the same about anti-Semites? I wonder.

The Anti-Israeli:

The State of Israel is likely to end as did the seven previous stabs at Jewish statehood - in total annihilation. And for the same reasons: conflicts between secular and religious Jews and a racist-colonialist pattern of deplorable behavior. The UN has noted this recidivist misconduct in numerous resolutions and when it justly compared Zionism to racism.

The Jewish Response:

Zionism is undoubtedly a typical 19th century national movement, promoting the interests of an ethnically-homogeneous nation. But it is not and never has been a racist movement. Zionists of all stripes never believed in the inherent inferiority or malevolence or impurity of any group of people (however arbitrarily defined or capriciously delimited) just because of their common origin or habitation. The State of Israel is not exclusionary. There are a million Israelis who are Arabs, both Christians and Muslims.

It is true, though, that Jews have a special standing in Israel. The Law of Return grants them immediate citizenship. Because of obvious conflicts of interest, Arabs cannot serve in the Israel Defense Forces (IDF). Consequently, they don't enjoy the special benefits conferred on war veterans and ex-soldiers.

Regrettably, it is also true that Arabs are discriminated against and hated by many Israelis, though rarely as a

matter of official policy. These are the bitter fruits of the ongoing conflict. Budget priorities are also heavily skewed in favor of schools and infrastructure in Jewish municipalities. A lot remains to be done.

The Anti-Israeli:

Zionism started off as a counter-revolution. It presented itself as an alternative to both orthodox religion and to assimilation in the age of European "Enlightenment". But it was soon hijacked by East European Jews who espoused a pernicious type of Stalinism and virulent anti-Arab racism.

The Jewish Response:

East European Jews were no doubt more nationalistic and etatist than the West European visionaries who gave birth to Zionism. But, again, they were not racist. On the very contrary. Their socialist roots called for close collaboration and integration of all the ethnicities and nationalities in Israel/Palestine.

The Anti-Israeli:

The "Status Quo" promulgated by Israel's first Prime Minister, David Ben-Gurion, confined institutionalized religion to matters of civil law and to communal issues. All affairs of state became the exclusive domain of the secular-leftist nomenclature and its attendant bureaucratic apparatus.

All this changed after the Six Days War in 1967 and, even more so, after the Yom Kippur War. Militant Messianic Jews with radical fundamentalist religious ideologies sought to eradicate the distinction between state and synagogue. They propounded a political agenda, thus

invading the traditionally secular turf, to the great consternation of their compatriots.

This schism is unlikely to heal and will be further exacerbated by the inevitable need to confront harsh demographic and geopolitical realities. No matter how much occupied territory Israel gives up and how many ersatz Jews it imports from East Europe, the Palestinians are likely to become a majority within the next 50 years.

Israel will sooner or later face the need to choose whether to institute a policy of strict and racist apartheid - or shrink into an indefensible (though majority Jewish) enclave. The fanatics of the religious right are likely to enthusiastically opt for the first alternative. All the rest of the Jews in Israel are bound to recoil. Civil war will then become unavoidable and with it the demise of yet another short-lived Jewish polity.

The Jewish Response:

Israel is, indeed, faced with the unpalatable choice and demographic realities described above. But don't bet on civil war and total annihilation just yet. There are numerous other political solutions - for instance, a confederacy of two national states, or one state with two nations. But, I agree, this is a serious problem further compounded by Palestinian demands for the right to return to their ancestral territories, now firmly within the Jewish State, even in its pre-1967 borders.

With regards to the hijacking of the national agenda by right-wing, religious fundamentalist Jewish militants - as the recent pullout from Gaza and some of the West Bank proves conclusively, Israelis are pragmatists. The influence of Messianic groups on Israeli decision-making

is blown out of proportion. They are an increasingly isolated - though vocal and sometimes violent - minority.

The Anti-Israeli:

Israel could, perhaps, have survived, had it not committed a second mortal sin by transforming itself into an outpost and beacon of Western (first British-French, then American) neo-colonialism. As the representative of the oppressors, it was forced to resort to an official policy of unceasing war crimes and repeated grave violations of human and civil rights.

The Jewish Response:

Israel aligned itself with successive colonial powers in the region because it felt it had no choice, surrounded and outnumbered as it was by hostile, trigger-happy, and heavily armed neighbors. Israel did miss, though, quite a few chances to make peace, however intermittent and hesitant, with its erstwhile enemies. It is also true that it committed itself to a policy of settlements and oppression within the occupied territories which inevitably gave rise to grave and repeated violations on international law. Overlording another people had a corrosive corrupting influence on Israeli society.

The Anti-Israeli:

The Arabs, who first welcomed the Jewish settlers and the economic opportunities they represented, turned against the new emigrants when they learned of their agenda of occupation, displacement, and ethnic cleansing. Israel became a pivot of destabilization in the Middle East, embroiled in conflicts and wars too numerous to count. Unscrupulous and corrupt Arab rulers used its existence and the menace it reified as a pretext to avoid

democratization, transparency, and accountability.

The Jewish Response:

With the exception of the 1919 Faisal-Weitzman declaration, Arabs never really welcomed the Jews. Attacks on Jewish outposts and settlers started as early as 1921 and never ceased. The wars in 1948 and in 1967 were initiated or provoked by the Arab states. It is true, though, that Israel unwisely leveraged its victories to oppress the Palestinians and for territorial gains, sometimes in cahoots with much despised colonial powers, such as Britain and France in 1956.

The Anti-Israeli:

This volatile mixture of ideological racism, Messianic empire-building, malignant theocracy much resented by the vast majority of secular Jews, and alignment with all entities anti-Arab and anti-Muslim will doom the Jewish country. In the long run, the real inheritors and proprietors of the Middle East are its long-term inhabitants, the Arabs. A strong army is not a guarantee of longevity - see the examples of the USSR and Yugoslavia.

Even now, it is not too late. Israel can transform itself into an important and benevolent regional player by embracing its Arab neighbors and by championing the causes of economic and scientific development, integration, and opposition to outside interference in the region's internal affairs. The Arabs, exhausted by decades of conflict and backwardness, are likely to heave a collective sigh of relief and embrace Israel - reluctantly at first and more warmly as it proves itself a reliable ally and friend.

Israel's demographic problem is more difficult to resolve. It requires Israel to renounce its exclusive racist and

theocratic nature. Israel must suppress, by force if need be, the lunatic fringe of militant religious fanatics that has been haunting its politics in the last three decades. And it must extend a welcoming hand to its Arab citizens by legislating and enforcing a set of Civil Rights Laws.

The Jewish Response:

Whether this Jewish state is doomed or not, time will tell. Peace with our Arab neighbors and equal treatment of our Arab citizens should be our two over-riding strategic priorities. The Jewish State cannot continue to live by the sword, lest it perishes by it.

If the will is there it can be done. The alternative is too horrible to contemplate.

Art (as Private Language)

The psychophysical problem is long standing and, probably, intractable.

We have a corporeal body. It is a physical entity, subject to all the laws of physics. Yet, we experience ourselves, our internal lives, external events in a manner which provokes us to postulate the existence of a corresponding, non-physical ontos, entity. This corresponding entity ostensibly incorporates a dimension of our being which, in principle, can never be tackled with the instruments and the formal logic of science.

A compromise was proposed long ago: the soul is nothing but our self awareness or the way that we experience ourselves. But this is a flawed solution. It is flawed because it assumes that the human experience is uniform, unequivocal and identical. It might well be so - but there is no methodologically rigorous way of proving it. We

have no way to objectively ascertain that all of us experience pain in the same manner or that pain that we experience is the same in all of us. This is even when the causes of the sensation are carefully controlled and monitored.

A scientist might say that it is only a matter of time before we find the exact part of the brain which is responsible for the specific pain in our gedankenexperiment. Moreover, will add our gedankenscientist, in due course, science will even be able to demonstrate a monovalent relationship between a pattern of brain activity in situ and the aforementioned pain. In other words, the scientific claim is that the patterns of brain activity ARE the pain itself.

Such an argument is, prima facie, inadmissible. The fact that two events coincide (even if they do so forever) does not make them identical. The serial occurrence of two events does not make one of them the cause and the other the effect, as is well known. Similarly, the contemporaneous occurrence of two events only means that they are correlated. A correlate is not an alter ego. It is not an aspect of the same event. The brain activity is what appears WHEN pain happens - it by no means follows that it IS the pain itself.

A stronger argument would crystallize if it was convincingly and repeatedly demonstrated that playing back these patterns of brain activity induces the same pain. Even in such a case, we would be talking about cause and effect rather than identity of pain and its correlate in the brain.

The gap is even bigger when we try to apply natural languages to the description of emotions and sensations. This seems close to impossible. How can one even half

accurately communicate one's anguish, love, fear, or desire? We are prisoners in the universe of our emotions, never to emerge and the weapons of language are useless. Each one of us develops his or her own, idiosyncratic, unique emotional language. It is not a jargon, or a dialect because it cannot be translated or communicated. No dictionary can ever be constructed to bridge this lingual gap. In principle, experience is incommunicable. People - in the very far future - may be able to harbour the same emotions, chemically or otherwise induced in them. One brain could directly take over another and make it feel the same. Yet, even then these experiences will not be communicable and we will have no way available to us to compare and decide whether there was an identity of sensations or of emotions.

Still, when we say "sadness", we all seem to understand what we are talking about. In the remotest and furthest reaches of the earth people share this feeling of being sad. The feeling might be evoked by disparate circumstances - yet, we all seem to share some basic element of "being sad". So, what is this element?

We have already said that we are confined to using idiosyncratic emotional languages and that no dictionary is possible between them.

Now we will postulate the existence of a meta language. This is a language common to all humans, indeed, it seems to be the language of being human. Emotions are but phrases in this language. This language must exist - otherwise all communication between humans would have ceased to exist. It would appear that the relationship between this universal language and the idiosyncratic, individualistic languages is a relation of correlation. Pain is correlated to brain activity, on the one hand - and to this

universal language, on the other. We would, therefore, tend to parsimoniously assume that the two correlates are but one and the same. In other words, it may well be that the brain activity which "goes together" is but the physical manifestation of the meta-lingual element "PAIN". We feel pain and this is our experience, unique, incommunicable, expressed solely in our idiosyncratic language.

We know that we are feeling pain and we communicate it to others. As we do so, we use the meta, universal language. The very use (or even the thought of using) this language provokes the brain activity which is so closely correlated with pain.

It is important to clarify that the universal language could well be a physical one. Possibly, even genetic. Nature might have endowed us with this universal language to improve our chances to survive. The communication of emotions is of an unparalleled evolutionary importance and a species devoid of the ability to communicate the existence of pain - would perish. Pain is our guardian against the perils of our surroundings.

To summarize: we manage our inter-human emotional communication using a universal language which is either physical or, at least, has strong physical correlates.

The function of bridging the gap between an idiosyncratic language (his or her own) and a more universal one was relegated to a group of special individuals called artists. Theirs is the job to experience (mostly emotions), to mould it into a the grammar, syntax and vocabulary of a universal language in order to communicate the echo of their idiosyncratic language. They are forever mediating between us and their experience. Rightly so, the quality of

an artist is measured by his ability to loyally represent his unique language to us. The smaller the distance between the original experience (the emotion of the artist) and its external representation - the more prominent the artist.

We declare artistic success when the universally communicable representation succeeds at recreating the original emotion (felt by the artist) with us. It is very much like those science fiction contraptions which allow for the decomposition of the astronaut's body in one spot - and its recreation, atom for atom in another (teleportation).

Even if the artist fails to do so but succeeds in calling forth any kind of emotional response in his viewers/readers/listeners, he is deemed successful.

Every artist has a reference group, his audience. They could be alive or dead (for instance, he could measure himself against past artists). They could be few or many, but they must exist for art, in its fullest sense, to exist. Modern theories of art speak about the audience as an integral and defining part of the artistic creation and even of the artefact itself.

But this, precisely, is the source of the dilemma of the artist:

Who is to determine who is a good, qualitative artist and who is not?

Put differently, who is to measure the distance between the original experience and its representation?

After all, if the original experience is an element of an idiosyncratic, non-communicable, language - we have no access to any information regarding it and, therefore, we

are in no position to judge it. Only the artist has access to it and only he can decide how far is his representation from his original experience. Art criticism is impossible.

Granted, his reference group (his audience, however limited, whether among the living, or among the dead) has access to that meta language, that universal dictionary available to all humans. But this is already a long way towards the representation (the work of art). No one in the audience has access to the original experience and their capacity to pass judgement is, therefore, in great doubt.

On the other hand, only the reference group, only the audience can aptly judge the representation for what it is. The artist is too emotionally involved. True, the cold, objective facts concerning the work of art are available to both artist and reference group - but the audience is in a privileged status, its bias is less pronounced.

Normally, the reference group will use the meta language embedded in us as humans, some empathy, some vague comparisons of emotions to try and grasp the emotional foundation laid by the artist. But this is very much like substituting verbal intercourse for the real thing. Talking about emotions - let alone making assumptions about what the artist may have felt that we also, maybe, share - is a far cry from what really transpired in the artist's mind.

We are faced with a dichotomy:

The epistemological elements in the artistic process belong exclusively and incommunicably to the artist.

The ontological aspects of the artistic process belong largely to the group of reference but they have no access to the epistemological domain.

And the work of art can be judged only by comparing the epistemological to the ontological.

Nor the artist, neither his group of reference can do it. This mission is nigh impossible.

Thus, an artist must make a decision early on in his career:

Should he remain loyal and close to his emotional experiences and studies and forgo the warmth and comfort of being reassured and directed from the outside, through the reactions of the reference group, or should he consider the views, criticism and advice of the reference group in his artistic creation - and, most probably, have to compromise the quality and the intensity of his original emotion in order to be more communicative.

I wish to thank my brother, Sharon Vaknin, a gifted painter and illustrator, for raising these issues.

ADDENDUM - Art as Self-Mutilation

The internalized anger of Jesus - leading to his suicidal pattern of behaviour - pertained to all of Mankind. His sacrifice "benefited" humanity as a whole. A self-mutilator, in comparison, appears to be "selfish".

His anger is autistic, self-contained, self-referential and, therefore, "meaningless" as far as we are concerned. His catharsis is a private language.

But what people fail to understand is that art itself is an act of self mutilation, the etching of ephemeral pain into a lasting medium, the ultimate private language.

They also ignore, at their peril, the fact that only a very

thin line separates self-mutilation - whether altruistic (Jesus) or "egoistic" - and the mutilation of others (serial killers, Hitler).

About inverted saints:
http://samvak.tripod.com/hitler.html

About serial killers:
http://samvak.tripod.com/serialkillers.html

B

Birthdays

Why do we celebrate birthdays? What is it that we are toasting? Is it the fact that we have survived another year against many odds? Are we marking the progress we have made, our cumulative achievements and possessions? Is a birthday the expression of hope sprung eternal to live another year?

None of the above, it would seem.

If it is the past year that we are commemorating, would we still drink to it if we were to receive some bad news about our health and imminent demise? Not likely. But why? What is the relevance of information about the ***future*** (our own looming death) when one is celebrating the ***past***? The past is immutable. No future event can vitiate the fact that we have made it through another 12 months of struggle. Then why not celebrate this fact?

Because it is not the past that is foremost on our minds. Our birthdays are about the future, not about the past. We are celebrating having arrived ***so far*** because such successful resilience allows us to continue ***forward***. We proclaim our potential to further enjoy the gifts of life. Birthdays are expressions of unbridled, blind faith in our own suspended mortality.

But, if this were true, surely as we grow older we have less and less cause to celebrate. What reason do octogenarians have to drink to another year if that gift is far from guaranteed? Life offers diminishing returns: the longer you are invested, the less likely you are to reap the

dividenda of survival. Indeed, based on actuary tables, it becomes increasingly less rational to celebrate one's future the older one gets.

Thus, we are forced into the conclusion that birthdays are about self-delusionally defying death. Birthdays are about preserving the illusion of immortality. Birthdays are forms of acting out our magical thinking. By celebrating our existence, we bestow on ourselves protective charms against the meaninglessness and arbitrariness of a cold, impersonal, and often hostile universe.

And, more often than not, it works. Happy birthday!

Brain, Metaphors of

The brain (and, by implication, the mind) have been compared to the latest technological innovation in every generation. The computer metaphor is now in vogue. Computer hardware metaphors were replaced by software metaphors and, lately, by (neuronal) network metaphors.

Metaphors are not confined to the philosophy of neurology. Architects and mathematicians, for instance, have lately come up with the structural concept of "tensegrity" to explain the phenomenon of life. The tendency of humans to see patterns and structures everywhere (even where there are none) is well documented and probably has its survival value.

Another trend is to discount these metaphors as erroneous, irrelevant, deceptive, and misleading. Understanding the mind is a recursive business, rife with self-reference. The entities or processes to which the brain is compared are also "brain-children", the results of "brain-storming", conceived by "minds". What is a computer, a software

application, a communications network if not a (material) representation of cerebral events?

A necessary and sufficient connection surely exists between man-made things, tangible and intangible, and human minds. Even a gas pump has a "mind-correlate". It is also conceivable that representations of the "non-human" parts of the Universe exist in our minds, whether a-priori (not deriving from experience) or a-posteriori (dependent upon experience). This "correlation", "emulation", "simulation", "representation" (in short : close connection) between the "excretions", "output", "spin-offs", "products" of the human mind and the human mind itself - is a key to understanding it.

This claim is an instance of a much broader category of claims: that we can learn about the artist by his art, about a creator by his creation, and generally: about the origin by any of the derivatives, inheritors, successors, products and similes thereof.

This general contention is especially strong when the origin and the product share the same nature. If the origin is human (father) and the product is human (child) - there is an enormous amount of data that can be derived from the product and safely applied to the origin. The closer the origin to the product - the more we can learn about the origin from the product.

We have said that knowing the product - we can usually know the origin. The reason is that knowledge about product "collapses" the set of probabilities and increases our knowledge about the origin. Yet, the converse is not always true. The same origin can give rise to many types of entirely unrelated products. There are too many free variables here. The origin exists as a "wave function": a

series of potentialities with attached probabilities, the potentials being the logically and physically possible products.

What can we learn about the origin by a crude perusal to the product? Mostly observable structural and functional traits and attributes. We cannot learn a thing about the "true nature" of the origin. We can not know the "true nature" of anything. This is the realm of metaphysics, not of physics.

Take Quantum Mechanics. It provides an astonishingly accurate description of micro-processes and of the Universe without saying much about their "essence". Modern physics strives to provide correct predictions - rather than to expound upon this or that worldview. It describes - it does not explain. Where interpretations are offered (e.g., the Copenhagen interpretation of Quantum Mechanics) they invariably run into philosophical snags. Modern science uses metaphors (e.g., particles and waves). Metaphors have proven to be useful scientific tools in the "thinking scientist's" kit. As these metaphors develop, they trace the developmental phases of the origin.

Consider the software-mind metaphor.

The computer is a "thinking machine" (however limited, simulated, recursive and mechanical). Similarly, the brain is a "thinking machine" (admittedly much more agile, versatile, non-linear, maybe even qualitatively different). Whatever the disparity between the two, they must be related to one another.

This relation is by virtue of two facts: (1) Both the brain and the computer are "thinking machines" and (2) the

latter is the product of the former. Thus, the computer metaphor is an unusually tenable and potent one. It is likely to be further enhanced should organic or quantum computers transpire.

At the dawn of computing, software applications were authored serially, in machine language and with strict separation of data (called: "structures") and instruction code (called: "functions" or "procedures"). The machine language reflected the physical wiring of the hardware.

This is akin to the development of the embryonic brain (mind). In the early life of the human embryo, instructions (DNA) are also insulated from data (i.e., from amino acids and other life substances).

In early computing, databases were handled on a "listing" basis ("flat file"), were serial, and had no intrinsic relationship to one another. Early databases constituted a sort of substrate, ready to be acted upon. Only when "intermixed" in the computer (as a software application was run) were functions able to operate on structures.

This phase was followed by the "relational" organization of data (a primitive example of which is the spreadsheet). Data items were related to each other through mathematical formulas. This is the equivalent of the increasing complexity of the wiring of the brain as pregnancy progresses.

The latest evolutionary phase in programming is OOPS (Object Oriented Programming Systems). Objects are modules which encompass ***both*** data and instructions in self contained units. The user communicates with the ***functions*** performed by these objects - but not with their ***structure and internal processes***.

Programming objects, in other words, are "black boxes" (an engineering term). The programmer is unable to tell ***how*** the object does what it does, or how does an external, useful function arise from internal, hidden functions or structures. Objects are epiphenomenal, emergent, phase transient. In short: much closer to reality as described by modern physics.

Though these black boxes communicate - it is not the communication, its speed, or efficacy which determine the overall efficiency of the system. It is the hierarchical and at the same time fuzzy organization of the objects which does the trick. Objects are organized in classes which define their (actualized and potential) properties. The object's behaviour (what it does and what it reacts to) is defined by its membership of a class of objects.

Moreover, objects can be organized in new (sub) classes while inheriting all the definitions and characteristics of the original class in addition to new properties. In a way, these newly emergent classes are the products while the classes they are derived from are the origin. This process so closely resembles natural - and especially biological - phenomena that it lends additional force to the software metaphor.

Thus, classes can be used as building blocks. Their permutations define the set of all soluble problems. It can be proven that Turing Machines are a private instance of a general, much stronger, class theory (a-la Principia Mathematica). The integration of hardware (computer, brain) and software (computer applications, mind) is done through "framework applications" which match the two elements structurally and functionally. The equivalent in the brain is sometimes called by philosophers and psychologists "a-priori categories", or "the collective

unconscious".

Computers and their programming evolve. Relational databases cannot be integrated with object oriented ones, for instance. To run Java applets, a "virtual machine" needs to be embedded in the operating system. These phases closely resemble the development of the brain-mind couplet.

When is a metaphor a good metaphor? When it teaches us something new about the origin. It must possess some structural and functional resemblance. But this quantitative and observational facet is not enough. There is also a qualitative one: the metaphor must be instructive, revealing, insightful, aesthetic, and parsimonious - in short, it must constitute a theory and produce falsifiable predictions. A metaphor is also subject to logical and aesthetic rules and to the rigors of the scientific method.

If the software metaphor is correct, the brain must contain the following features:

1. Parity checks through back propagation of signals. The brain's electrochemical signals must move back (to the origin) and forward, simultaneously, in order to establish a feedback parity loop.

2. The neuron cannot be a binary (two state) machine (a quantum computer is multi-state). It must have many levels of excitation (i.e., many modes of representation of information). The threshold ("all or nothing" firing) hypothesis must be wrong.

3. Redundancy must be built into all the aspects and dimensions of the brain and its activities. Redundant hardware -different centers to perform similar tasks. Redundant communications channels

with the same information simultaneously transferred across them. Redundant retrieval of data and redundant usage of obtained data (through working, "upper" memory).

4. The basic concept of the workings of the brain must be the comparison of "representational elements" to "models of the world". Thus, a coherent picture is obtained which yields predictions and allows to manipulate the environment effectively.

5. Many of the functions tackled by the brain must be recursive. We can expect to find that we can reduce all the activities of the brain to computational, mechanically solvable, recursive functions. The brain can be regarded as a Turing Machine and the dreams of Artificial Intelligence are likely come true.
6. The brain must be a learning, self organizing, entity. The brain's very hardware must disassemble, reassemble, reorganize, restructure, reroute, reconnect, disconnect, and, in general, alter itself in response to data. In most man-made machines, the data is external to the processing unit. It enters and exits the machine through designated ports but does not affect the machine's structure or functioning. Not so the brain. It reconfigures itself with every bit of data. One can say that a new brain is created every time a single bit of information is processed.

Only if these six cumulative requirements are met - can we say that the software metaphor is useful.

C

Cannibalism (and Human Sacrifice)

"I believe that when man evolves a civilization higher than the mechanized but still primitive one he has now, the eating of human flesh will be sanctioned. For then man will have thrown off all of his superstitions and irrational taboos."

(Diego Rivera)

"One calls 'barbarism' whatever he is not accustomed to."

(Montaigne, On Cannibalism)

"Then Jesus said unto them, Verily, verily, I say unto you, Except ye eat the flesh of the Son of man, and drink his blood, ye have no life in you. Whoso eateth my flesh, and drinketh my blood, hath eternal life; and I will raise him up at the last day. For my flesh is meat indeed, and my blood is drink indeed."

(New Testament, John 6:53-55)

Cannibalism (more precisely, anthropophagy) is an age-old tradition that, judging by a constant stream of flabbergasted news reports, is far from extinct. Much-debated indications exist that our Neanderthal, Proto-Neolithic, and Neolithic (Stone Age) predecessors were cannibals. Similarly contested claims were made with regards to the 12th century advanced Anasazi culture in the southwestern United States and the Minoans in Crete (today's Greece).

The Britannica Encyclopedia (2005 edition) recounts how the ***"Binderwurs of central India ate their sick and aged in the belief that the act was pleasing to their goddess, Kali."*** Cannibalism may also have been common among followers of the Shaktism cults in India.

Other sources attribute cannibalism to the 16th century Imbangala in today's Angola and Congo, the Fang in Cameroon, the Mangbetu in Central Africa, the Ache in Paraguay, the Tonkawa in today's Texas, the Calusa in current day Florida, the Caddo and Iroquois confederacies of Indians in North America, the Cree in Canada, the Witoto, natives of Colombia and Peru, the Carib in the Lesser Antilles (whose distorted name - Canib - gave rise to the word "cannibalism"), to Maori tribes in today's New Zealand, and to various peoples in Sumatra (like the Batak).

The Wikipedia numbers among the practitioners of cannibalism the ancient Chinese, the Korowai tribe of southeastern Papua, the Fore tribe in New Guinea (and many other tribes in Melanesia), the Aztecs, the people of Yucatan, the Purchas from Popayan, Colombia, the denizens of the Marquesas Islands of Polynesia, and the natives of the captaincy of Sergipe in Brazil.

From Congo and Central Africa to Germany and from Mexico to New Zealand, cannibalism is enjoying a morbid revival of interest, if not of practice. A veritable torrent of sensational tomes and movies adds to our ambivalent fascination with man-eaters.

Cannibalism is not a monolithic affair. It can be divided thus:

I. ***Non-consensual consumption of human flesh post-***

mortem

For example, when the corpses of prisoners of war are devoured by their captors. This used to be a common exercise among island tribes (e.g., in Fiji, the Andaman and Cook islands) and is still the case in godforsaken battle zones such as Congo (formerly Zaire), or among the defeated Japanese soldiers in World War II.

Similarly, human organs and fetuses as well as mummies are still being gobbled up - mainly in Africa and Asia - for remedial and medicinal purposes and in order to enhance one's libido and vigor.

On numerous occasions the organs of dead companions, colleagues, family, or neighbors were reluctantly ingested by isolated survivors of horrid accidents (the Uruguay rugby team whose plane crashed in the Andes, the boat people fleeing Asia), denizens of besieged cities (e.g., during the siege of Leningrad), members of exploratory expeditions gone astray (the Donner Party in Sierra Nevada, California and John Franklin's Polar expedition), famine-stricken populations (Ukraine in the 1930s, China in the 1960s), and the like.

Finally, in various pre-nation-state and tribal societies, members of the family were encouraged to eat specific parts of their dead relatives as a sign of respect or in order to partake of the deceased's wisdom, courage, or other positive traits (endocannibalism).

II. Non-consensual consumption of human flesh from a live source

For example, when prisoners of war are butchered for the express purpose of being eaten by their victorious enemies.

A notorious and rare representative of this category of cannibalism is the punitive ritual of being eaten alive. The kings of the tribes of the Cook Islands were thought to embody the gods. They punished dissent by dissecting their screaming and conscious adversaries and consuming their flesh piecemeal, eyeballs first.

The Sawney Bean family in Scotland, during the reign of King James I, survived for decades on the remains (and personal belongings) of victims of their murderous sprees.

Real-life serial killers, like Jeffrey Dahmer, Albert Fish, Sascha Spesiwtsew, Fritz Haarmann, Issei Sagawa, and Ed Gein, lured, abducted, and massacred countless people and then consumed their flesh and preserved the inedible parts as trophies. These lurid deeds inspired a slew of books and films, most notably The Silence of the Lambs with Hannibal (Lecter) the Cannibal as its protagonist.

III. Consensual consumption of human flesh from live and dead human bodies

Armin Meiwes, the "Master Butcher (Der Metzgermeister)", arranged over the Internet to meet Bernd Jurgen Brandes on March 2001. Meiwes amputated the penis of his guest and they both ate it. He then proceeded to kill Brandes (with the latter's consent recorded on video), and snack on what remained of him. Sexual cannibalism is a paraphilia and an extreme - and thankfully, rare - form of fetishism.

The Aztecs willingly volunteered to serve as human sacrifices (and to be tucked into afterwards). They firmly believed that they were offerings, chosen by the gods themselves, thus being rendered immortal.

Dutiful sons and daughters in China made their amputated

organs and sliced tissues (mainly the liver) available to their sick parents (practices known as Ko Ku and Ko Kan). Such donation were considered remedial. Princess Miao Chuang who surrendered her severed hands to her ailing father was henceforth deified.

Non-consensual cannibalism is murder, pure and simple. The attendant act of cannibalism, though aesthetically and ethically reprehensible, cannot aggravate this supreme assault on all that we hold sacred.

But consensual cannibalism is a lot trickier. Modern medicine, for instance, has blurred the already thin line between right and wrong.

What is the ethical difference between consensual, post-mortem, organ harvesting and consensual, post-mortem cannibalism?

Why is stem cell harvesting (from aborted fetuses) morally superior to consensual post-mortem cannibalism?

When members of a plane-wrecked rugby team, stranded on an inaccessible, snow-piled, mountain range resort to eating each other in order to survive, we turn a blind eye to their repeated acts of cannibalism - but we condemn the very same deed in the harshest terms if it takes place between two consenting, and even eager adults in Germany. Surely, we don't treat murder, pedophilia, and incest the same way!

As the Auxiliary Bishop of Montevideo said after the crash:

"... Eating someone who has died in order to survive is incorporating their substance, and it is quite possible to compare this with a graft. Flesh survives when

assimilated by someone in extreme need, just as it does when an eye or heart of a dead man is grafted onto a living man..."

(Read, P.P. 1974. Alive. Avon, New York)

Complex ethical issues are involved in the apparently straightforward practice of consensual cannibalism.

Consensual, in vivo, cannibalism (a-la Messrs. Meiwes and Brandes) resembles suicide. The cannibal is merely the instrument of voluntary self-destruction. Why would we treat it different to the way we treat any other form of suicide pact?

Consensual cannibalism is not the equivalent of drug abuse because it has no social costs. Unlike junkies, the cannibal and his meal are unlikely to harm others. What gives society the right to intervene, therefore?

If we own our bodies and, thus, have the right to smoke, drink, have an abortion, commit suicide, and will our organs to science after we die - why don't we possess the inalienable right to will our delectable tissues to a discerning cannibal post-mortem (or to victims of famine in Africa)?

When does our right to dispose of our organs in any way we see fit crystallize? Is it when we die? Or after we are dead? If so, what is the meaning and legal validity of a living will? And why can't we make a living will and bequeath our cadaverous selves to the nearest cannibal?

Do dead people have rights and can they claim and invoke them while they are still alive? Is the live person the same as his dead body, does he "own" it, does the state have any rights in it? Does the corpse stll retain its previous

occupant's "personhood"? Are cadavers still human, in any sense of the word?

We find all three culinary variants abhorrent. Yet, this instinctive repulsion is a curious matter. The onerous demands of survival should have encouraged cannibalism rather than make it a taboo. Human flesh is protein-rich. Most societies, past and present (with the exception of the industrialized West), need to make efficient use of rare protein-intensive resources.

If cannibalism enhances the chances of survival - why is it universally prohibited? For many a reason.

I. The Sanctity of Life

Historically, cannibalism preceded, followed, or precipitated an act of murder or extreme deprivation (such as torture). It habitually clashed with the principle of the sanctity of life. Once allowed, even under the strictest guidelines, cannibalism tended to debase and devalue human life and foster homicide, propelling its practitioners down a slippery ethical slope towards bloodlust and orgiastic massacres.

II. The Afterlife

Moreover, in life, the human body and form are considered by most religions (and philosophers) to be the abode of the soul, the divine spark that animates us all. The post-mortem integrity of this shrine is widely thought to guarantee a faster, unhindered access to the afterlife, to immortality, and eventual reincarnation (or karmic cycle in eastern religions).

For this reason, to this very day, orthodox Jews refuse to subject their relatives to a post-mortem autopsy and organ

harvesting. Fijians and Cook Islanders used to consume their enemies' carcasses in order to prevent their souls from joining hostile ancestors in heaven.

III. Chastening Reminders

Cannibalism is a chilling reminder of our humble origins in the animal kingdom. To the cannibal, we are no better and no more than cattle or sheep. Cannibalism confronts us with the irreversibility of our death and its finality. Surely, we cannot survive our demise with our cadaver mutilated and gutted and our skeletal bones scattered, gnawed, and chewed on?

IV. Medical Reasons

Infrequently, cannibalism results in prion diseases of the nervous system, such as kuru. The same paternalism that gave rise to the banning of drug abuse, the outlawing of suicide, and the Prohibition of alcoholic drinks in the 1920s - seeks to shelter us from the pernicious medical outcomes of cannibalism and to protect others who might become our victims.

V. The Fear of Being Objectified

Being treated as an object (being objectified) is the most torturous form of abuse. People go to great lengths to seek empathy and to be perceived by others as three dimensional entities with emotions, needs, priorities, wishes, and preferences.

The cannibal reduces others by treating them as so much meat. Many cannibal serial killers transformed the organs of their victims into trophies. The Cook Islanders sought to humiliate their enemies by eating, digesting, and then defecating them - having absorbed their mana (prowess,

life force) in the process.

VI. The Argument from Nature

Cannibalism is often castigated as "unnatural". Animals, goes the myth, don't prey on their own kind.

Alas, like so many other romantic lores, this is untrue. Most species - including our closest relatives, the chimpanzees - do cannibalize. Cannibalism in nature is widespread and serves diverse purposes such as population control (chickens, salamanders, toads), food and protein security in conditions of scarcity (hippopotamuses, scorpions, certain types of dinosaurs), threat avoidance (rabbits, mice, rats, and hamsters), and the propagation of genetic material through exclusive mating (Red-back spider and many mantids).

Moreover, humans are a part of nature. Our deeds and misdeeds are natural by definition. Seeking to tame nature is a natural act. Seeking to establish hierarchies and subdue or relinquish our enemies are natural propensities. By avoiding cannibalism we seek to transcend nature. Refraining from cannibalism is the unnatural act.

VIII. The Argument from Progress

It is a circular syllogism involving a tautology and goes like this:

Cannibalism is barbaric. Cannibals are, therefore, barbarians. Progress entails the abolition of this practice.

The premises - both explicit and implicit - are axiomatic and, therefore, shaky. What makes cannibalism barbarian? And why is progress a desirable outcome? There is a prescriptive fallacy involved, as well:

Because we do not eat the bodies of dead people - we ought not to eat them.

VIII. Arguments from Religious Ethics

The major monotheistic religions are curiously mute when it comes to cannibalism. Human sacrifice is denounced numerous times in the Old Testament - but man-eating goes virtually unmentioned. The Eucharist in Christianity - when the believers consume the actual body and blood of Jesus - is an act of undisguised cannibalism:

"That the consequence of Transubstantiation, as a conversion of the total substance, is the transition of the entire substance of the bread and wine into the Body and Blood of Christ, is the express doctrine of the Church ...."

(Catholic Encyclopedia)

"CANON lI.-If any one saith, that, in the sacred and holy sacrament of the Eucharist, the substance of the bread and wine remains conjointly with the body and blood of our Lord Jesus Christ, and denieth that wonderful and singular conversion of the whole substance of the bread into the Body, and of the whole substance of the wine into the Blood-the species Only of the bread and wine remaining-which conversion indeed the Catholic Church most aptly calls Transubstantiation; let him be anathema.

CANON VIII.-lf any one saith, that Christ, given in the Eucharist, is eaten spiritually only, and not also sacramentally and really; let him be anathema."

(The Council of Trent, The Thirteenth Session - The canons and decrees of the sacred and oecumenical

Council of Trent, Ed. and trans. J. Waterworth (London: Dolman, 1848), 75-91.)

Still, most systems of morality and ethics impute to Man a privileged position in the scheme of things (having been created in the "image of God"). Men and women are supposed to transcend their animal roots and inhibit their baser instincts (an idea incorporated into Freud's tripartite model of the human psyche). The anthropocentric chauvinistic view is that it is permissible to kill all other animals in order to consume their flesh. Man, in this respect, is sui generis.

Yet, it is impossible to rigorously derive a prohibition to eat human flesh from any known moral system. As Richard Routley-Silvan observes in his essay "In Defence of Cannibalism", that something is innately repugnant does not make it morally prohibited. Moreover, that we find cannibalism nauseating is probably the outcome of upbringing and conditioning rather than anything innate.

Causes, External

Some philosophers say that our life is meaningless because it has a prescribed end. This is a strange assertion: is a movie rendered meaningless because of its finiteness? Some things acquire a meaning precisely because they are finite: consider academic studies, for instance. It would seem that meaningfulness does not depend upon matters temporary.

We all share the belief that we derive meaning from external sources. Something bigger than us – and outside us – bestows meaning upon our lives: God, the State, a social institution, an historical cause.

Yet, this belief is misplaced and mistaken. If such an external source of meaning were to depend upon us for its definition (hence, for its meaning) – how could we derive meaning from it? A cyclical argument ensues. We can never derive meaning from that whose very meaning (or definition) is dependent on us. The defined cannot define the definer. To use the defined as part of its own definition (by the vice of its inclusion in the definer) is the very definition of a tautology, the gravest of logical fallacies.

On the other hand: if such an external source of meaning were NOT dependent on us for its definition or meaning – again it would have been of no use in our quest for meaning and definition. That which is absolutely independent of us – is absolutely free of any interaction with us because such an interaction would inevitably have constituted a part of its definition or meaning. And that, which is devoid of any interaction with us – cannot be known to us. We know about something by interacting with it. The very exchange of information – through the senses - is an interaction.

Thus, either we serve as part of the definition or the meaning of an external source – or we do not. In the first case, it cannot constitute a part of our own definition or meaning. In the second case, it cannot be known to us and, therefore, cannot be discussed at all. Put differently: no meaning can be derived from an external source.

Despite the above said, people derive meaning almost exclusively from external sources. If a sufficient number of questions is asked, we will always reach an external source of meaning. People believe in God and in a divine plan, an order inspired by Him and manifest in both the inanimate and the animate universe. Their lives acquire meaning by realizing the roles assigned to them by this

Supreme Being. They are defined by the degree with which they adhere to this divine design. Others relegate the same functions to the Universe (to Nature). It is perceived by them to be a grand, perfected, design, or mechanism. Humans fit into this mechanism and have roles to play in it. It is the degree of their fulfilment of these roles which characterizes them, provides their lives with meaning and defines them.

Other people attach the same endowments of meaning and definition to human society, to Mankind, to a given culture or civilization, to specific human institutions (the Church, the State, the Army), or to an ideology. These human constructs allocate roles to individuals. These roles define the individuals and infuse their lives with meaning. By becoming part of a bigger (external) whole – people acquire a sense of purposefulness, which is confused with meaningfulness. Similarly, individuals confuse their functions, mistaking them for their own definitions. In other words: people become defined by their functions and through them. They find meaning in their striving to attain goals.

Perhaps the biggest and most powerful fallacy of all is teleology. Again, meaning is derived from an external source: the future. People adopt goals, make plans to achieve them and then turn these into the raisons d'etre of their lives. They believe that their acts can influence the future in a manner conducive to the achievement of their pre-set goals. They believe, in other words, that they are possessed of free will and of the ability to exercise it in a manner commensurate with the attainment of their goals in accordance with their set plans. Furthermore, they believe that there is a physical, unequivocal, monovalent interaction between their free will and the world.

This is not the place to review the mountainous literature pertaining to these (near eternal) questions: is there such a thing as free will or is the world deterministic? Is there causality or just coincidence and correlation? Suffice it to say that the answers are far from being clear-cut. To base one's notions of meaningfulness and definition on any of them would be a rather risky act, at least philosophically.

But, can we derive meaning from an inner source? After all, we all "emotionally, intuitively, know" what is meaning and that it exists. If we ignore the evolutionary explanation (a false sense of meaning was instilled in us by Nature because it is conducive to survival and it motivates us to successfully prevail in hostile environments) - it follows that it must have a source somewhere. If the source is internal – it cannot be universal and it must be idiosyncratic. Each one of us has a different inner environment. No two humans are alike. A meaning that springs forth from a unique inner source – must be equally unique and specific to each and every individual. Each person, therefore, is bound to have a different definition and a different meaning. This may not be true on the biological level. We all act in order to maintain life and increase bodily pleasures. But it should definitely hold true on the psychological and spiritual levels. On those levels, we all form our own narratives. Some of them are derived from external sources of meaning – but all of them rely heavily on inner sources of meaning. The answer to the last in a chain of questions will always be: "Because it makes me feel good".

In the absence of an external, indisputable, source of meaning – no rating and no hierarchy of actions are possible. An act is preferable to another (using any criterion of preference) only if there is an outside source

of judgement or of comparison.

Paradoxically, it is much easier to prioritize acts with the use of an inner source of meaning and definition. The pleasure principle ("what gives me more pleasure") is an efficient (inner-sourced) rating mechanism. To this eminently and impeccably workable criterion, we usually attach another, external, one (ethical and moral, for instance). The inner criterion is really ours and is a credible and reliable judge of real and relevant preferences. The external criterion is nothing but a defence mechanism embedded in us by an external source of meaning. It comes to defend the external source from the inevitable discovery that it is meaningless.

Chinese Room

Whole forests have been wasted in the effort to refute the Chinese Room Thought Experiment proposed by Searle in 1980 and refined (really derived from axioms) in 1990. The experiment envisages a room in which an English speaker sits, equipped with a book of instructions in English. Through one window messages in Chinese are passed on to him (in the original experiment, two types of messages). He is supposed to follow the instructions and correlate the messages received with other pieces of paper, already in the room, also in Chinese. This collage he passes on to the outside through yet another window. The comparison with a computer is evident. There is input, a processing unit and output. What Searle tried to demonstrate is that there is no need to assume that the central processing unit (the English speaker) understands (or, for that matter, performs any other cognitive or mental function) the input or the output (both in Chinese). Searle generalized and stated that this shows that computers will never be capable of thinking, being conscious, or having

other mental states. In his picturesque language "syntax is not a sufficient base for semantics". Consciousness is not reducible to computations. It takes a certain "stuff" (the brain) to get these results.

Objections to the mode of presentation selected by Searle and to the conclusions that he derived were almost immediately raised. Searle fought back effectively. But throughout these debates a few points seemed to have escaped most of those involved.

First, the English speaker inside the room himself is a conscious entity, replete and complete with mental states, cognition, awareness and emotional powers. Searle went to the extent of introducing himself to the Chinese Room (in his disputation). Whereas Searle would be hard pressed to prove (to himself) that the English speaker in the room is possessed of mental states – this is not the case if he himself were in the room. The Cartesian maxim holds: "Cogito, ergo sum". But this argument – though valid – is not strong. The English speaker (and Searle, for that matter) can easily be replaced in the thought experiment by a Turing machine. His functions are recursive and mechanical.

But there is a much more serious objection. Whomever composed the book of instructions must have been conscious, possessed of mental states and of cognitive processes. Moreover, he must also have had a perfect understanding of Chinese to have authored it. It must have been an entity capable of thinking, analysing, reasoning, theorizing and predicting in the deepest senses of the words. In other words: it must have been intelligent. So, intelligence (we will use it hitherto as a catchphrase for the gamut of mental states) was present in the Chinese Room. It was present in the book of instructions and it

was present in the selection of the input of Chinese messages and it was present when the results were deciphered and understood. An intelligent someone must have judged the results to have been coherent and "right". An intelligent agent must have fed the English speaker with the right input. A very intelligent, conscious, being with a multitude of cognitive mental states must have authored the "program" (the book of instructions). Depending on the content of correlated inputs and outputs, it is conceivable that this intelligent being was also possessed of emotions or an aesthetic attitude as we know it. In the case of real life computers – this would be the programmer.

But it is the computer that Searle is talking about – not its programmer, or some other, external source of intelligence. The computer is devoid of intelligence, the English speaker does not understand Chinese (="Mentalese")– not the programmer (or who authored the book of instructions). Yet, is the SOURCE of the intelligence that important? Shouldn't we emphasize the LOCUS (site) of the intelligence, where it is stored and used?

Surely, the programmer is the source of any intelligence that a computer possesses. But is this relevant? If the computer were to effectively make use of the intelligence bestowed upon it by the programmer – wouldn't we say that it is intelligent? If tomorrow we will discover that our mental states are induced in us by a supreme intelligence (known to many as God) – should we then say that we are devoid of mental states? If we were to discover in a distant future that what we call "our" intelligence is really a clever program run from a galactic computer centre – will we then feel less entitled to say that we are

intelligent? Will our subjective feelings, the way that we experience our selves, change in the wake of this newly acquired knowledge? Will we no longer feel the mental states and the intelligence that we used to feel prior to these discoveries? If Searle were to live in that era – would he have declared himself devoid of mental, cognitive, emotional and intelligent states – just because the source and the mechanism of these phenomena have been found out to be external or remote? Obviously, not. Where the intelligence emanates from, what is its source, how it is conferred, stored, what are the mechanisms of its bestowal – are all irrelevant to the question whether a given entity is intelligent. The only issue relevant is whether the discussed entity is possessed of intelligence, contains intelligence, has intelligent components, stores intelligence and is able to make a dynamic use of it. The locus and its properties (behaviour) matter. If a programmer chose to store intelligence in a computer – then he created an intelligent computer. He conferred his intelligence onto the computer. Intelligence can be replicated endlessly. There is no quantitative law of conservation of mental states. We teach our youngsters – thereby replicating our knowledge and giving them copies of it without "eroding" the original. We shed tears in the movie theatre because the director succeeded to replicate an emotion in us – without losing one bit of original emotion captured on celluloid.

Consciousness, mental states, intelligence are transferable and can be stored and conferred. Pregnancy is a process of conferring intelligence. The book of instructions is stored in our genetic material. We pass on this book to our off spring. The decoding and unfolding of the book are what we call the embryonic phases. Intelligence, therefore, can (and is) passed on (in this case, through the genetic

material, in other words: through hardware).

We can identify an emitter (or transmitter) of mental states and a receiver of mental states (equipped with an independent copy of a book of instructions). The receiver can be passive (as television is). In such a case we will not be justified in saying that it is "intelligent" or has a mental life. But – if it possesses the codes and the instructions – it could make independent use of the data, process it, decide upon it, pass it on, mutate it, transform it, react to it. In the latter case we will not be justified in saying that the receiver does NOT possess intelligence or mental states. Again, the source, the trigger of the mental states are irrelevant. What is relevant is to establish that the receiver has a copy of the intelligence or of the other mental states of the agent (the transmitter). If so, then it is intelligent in its own right and has a mental life of its own.

Must the source be point-like, an identifiable unit? Not necessarily. A programmer is a point-like source of intelligence (in the case of a computer). A parent is a point-like source of mental states (in the case of his child). But other sources are conceivable.

For instance, we could think about mental states as emergent. Each part of an entity might not demonstrate them. A neurone cell in the brain has no mental states of it own. But when a population of such parts crosses a quantitatively critical threshold – an epiphenomenon occurs. When many neurones are interlinked – the results are mental states and intelligence. The quantitative critical mass – happens also to be an important qualitative threshold.

Imagine a Chinese Gymnasium instead of a Chinese Room. Instead of one English speaker – there is a

multitude of them. Each English speaker is the equivalent of a neurone. Altogether, they constitute a brain. Searle says that if one English speaker does not understand Chinese, it would be ridiculous to assume that a multitude of English speakers would. But reality shows that this is exactly what will happen. A single molecule of gas has no temperature or pressure. A mass of them – does. Where did the temperature and pressure come from? Not from any single molecule – so we are forced to believe that both these qualities emerged. Temperature and pressure (in the case of gas molecules), thinking (in the case of neurones) – are emergent phenomena.

All we can say is that there seems to be an emergent source of mental states. As an embryo develops, it is only when it crosses a certain quantitative threshold (number of differentiated cells) – that he begins to demonstrate mental states. The source is not clear – but the locus is. The residence of the mental states is always known – whether the source is point-like and identifiable, or diffusely emerges as an epiphenomenon.

It is because we can say very little about the source of mental states – and a lot about their locus, that we developed an observer bias. It is much easier to observe mental states in their locus – because they create behaviour. By observing behaviour – we deduce the existence of mental states. The alternative is solipsism (or religious panpsychism, or mere belief). The dichotomy is clear and painful: either we, as observers, cannot recognize mental states, in principle – or, we can recognize them only through their products.

Consider a comatose person. Does he have a mental life going on? Comatose people have been known to have reawakened in the past. So, we know that they are alive in

more than the limited physiological sense. But, while still, do they have a mental life of any sort?

We cannot know. This means that in the absence of observables (behaviour, communication) – we cannot be certain that mental states exist. This does not mean that mental states ARE those observables (a common fallacy). This says nothing about the substance of mental states. This statement is confined to our measurements and observations and to their limitations. Yet, the Chinese Room purports to say something about the black box that we call "mental states". It says that we can know (prove or refute) the existence of a TRUE mental state – as distinct from a simulated one. That, despite appearances, we can tell a "real" mental state apart from its copy. Confusing the source of the intelligence with its locus is at the bottom of this thought experiment. It is conceivable to have an intelligent entity with mental states – that derives (or derived) its intelligence and mental states from a point-like source or acquired these properties in an emergent, epiphenomenal way. The identity of the source and the process through which the mental states were acquired are irrelevant. To say that the entity is not intelligent (the computer, the English speaker) because it got its intelligence from the outside (the programmer) – is like saying that someone is not rich because he got his millions from the national lottery.

Cloning

In a paper, published in "Science" in May 2005, 25 scientists, led by Woo Suk Hwang of Seoul National University, confirmed that they were able to clone dozens of blastocysts (the clusters of tiny cells that develop into embryos). Blastocysts contain stem cells that can be used to generate replacement tissues and, perhaps, one day,

whole organs. The fact that cloned cells are identical to the original cell guarantees that they will not be rejected by the immune system of the recipient.

The results were later proven faked by the disgraced scientist - but they pointed the way for future research non the less.

There are two types of cloning. One involves harvesting stem cells from embryos ("therapeutic cloning"). Stem cells are the biological equivalent of a template or a blueprint. They can develop into any kind of mature functional cell and thus help cure many degenerative and auto-immune diseases.

The other kind of cloning, known as "nuclear transfer", is much decried in popular culture - and elsewhere - as the harbinger of a Brave, New World. A nucleus from any cell of a donor is embedded in an (either mouse or human) egg whose own nucleus has been removed. The egg can then be coaxed into growing specific kinds of tissues (e.g., insulin-producing cells or nerve cells). These can be used in a variety of treatments.

Opponents of the procedure point out that when a treated human egg is implanted in a woman's womb a cloned baby will be born nine months later. Biologically, the infant is a genetic replica of the donor. When the donor of both nucleus and egg is the same woman, the process is known as "auto-cloning" (which was achieved by Woo Suk Hwang).

Cloning is often confused with other advances in bio-medicine and bio-engineering - such as genetic selection. It cannot - in itself - be used to produce "perfect humans" or select sex or other traits. Hence, some of the arguments

against cloning are either specious or fuelled by ignorance.

It is true, though, that cloning, used in conjunction with other bio-technologies, raises serious bio-ethical questions. Scare scenarios of humans cultivated in sinister labs as sources of spare body parts, "designer babies", "master races", or "genetic sex slaves" - formerly the preserve of B sci-fi movies - have invaded mainstream discourse.

Still, cloning touches upon Mankind's most basic fears and hopes. It invokes the most intractable ethical and moral dilemmas. As an inevitable result, the debate is often more passionate than informed.

See the Appendix - Arguments from the Right to Life

But is the Egg - Alive?

This question is NOT equivalent to the ancient quandary of "when does life begin". Life crystallizes, at the earliest, when an egg and a sperm unite (i.e., at the moment of fertilization). Life is not a potential - it is a process triggered by an event. An unfertilized egg is neither a process - nor an event. It does not even possess the potential to become alive unless and until it merges with a sperm. Should such merger not occur - it will never develop life.

The potential to become X is not the ontological equivalent of actually being X, nor does it spawn moral and ethical rights and obligations pertaining to X. The transition from potential to being is not trivial, nor is it automatic, or inevitable, or independent of context. Atoms of various elements have the potential to become an egg (or, for that matter, a human being) - yet no one would

claim that they ARE an egg (or a human being), or that they should be treated as one (i.e., with the same rights and obligations).

Moreover, it is the donor nucleus embedded in the egg that endows it with life - the life of the cloned baby. Yet, the nucleus is usually extracted from a muscle or the skin. Should we treat a muscle or a skin cell with the same reverence the critics of cloning wish to accord an unfertilized egg?

Is This the Main Concern?

The main concern is that cloning - even the therapeutic kind - will produce piles of embryos. Many of them - close to 95% with current biotechnology - will die. Others can be surreptitiously and illegally implanted in the wombs of "surrogate mothers".

It is patently immoral, goes the precautionary argument, to kill so many embryos. Cloning is such a novel technique that its success rate is still unacceptably low. There are alternative ways to harvest stem cells - less costly in terms of human life. If we accept that life begins at the moment of fertilization, this argument is valid. But it also implies that - once cloning becomes safer and scientists more adept - cloning itself should be permitted.

This is anathema to those who fear a slippery slope. They abhor the very notion of "unnatural" conception. To them, cloning is a narcissistic act and an ignorant and dangerous interference in nature's sagacious ways. They would ban procreative cloning, regardless of how safe it is. Therapeutic cloning - with its mounds of discarded fetuses - will allow rogue scientists to cross the boundary between permissible (curative cloning) and illegal (baby cloning).

Why Should Baby Cloning be Illegal?

Cloning's opponents object to procreative cloning because it can be abused to design babies, skew natural selection, unbalance nature, produce masters and slaves and so on. The "argument from abuse" has been raised with every scientific advance - from in vitro fertilization to space travel.

Every technology can be potentially abused. Television can be either a wonderful educational tool - or an addictive and mind numbing pastime. Nuclear fission is a process that yields both nuclear weapons and atomic energy. To claim, as many do, that cloning touches upon the "heart" of our existence, the "kernel" of our being, the very "essence" of our nature - and thus threatens life itself - would be incorrect.

There is no "privileged" form of technological abuse and no hierarchy of potentially abusive technologies. Nuclear fission tackles natural processes as fundamental as life. Nuclear weapons threaten life no less than cloning. The potential for abuse is not a sufficient reason to arrest scientific research and progress - though it is a necessary condition.

Some fear that cloning will further the government's enmeshment in the healthcare system and in scientific research. Power corrupts and it is not inconceivable that governments will ultimately abuse and misuse cloning and other biotechnologies. Nazi Germany had a state-sponsored and state-mandated eugenics program in the 1930's.

Yet, this is another variant of the argument from abuse. That a technology can be abused by governments does not

imply that it should be avoided or remain undeveloped. This is because all technologies - without a single exception - can and are abused routinely - by governments and others. This is human nature.

Fukuyama raised the possibility of a multi-tiered humanity in which "natural" and "genetically modified" people enjoy different rights and privileges. But why is this inevitable? Surely this can easily by tackled by proper, prophylactic, legislation?

All humans, regardless of their pre-natal history, should be treated equally. Are children currently conceived in vitro treated any differently to children conceived in utero? They are not. There is no reason that cloned or genetically-modified children should belong to distinct legal classes.

Unbalancing Nature

It is very anthropocentric to argue that the proliferation of genetically enhanced or genetically selected children will somehow unbalance nature and destabilize the precarious equilibrium it maintains. After all, humans have been modifying, enhancing, and eliminating hundreds of thousands of species for well over 10,000 years now. Genetic modification and bio-engineering are as natural as agriculture. Human beings are a part of nature and its manifestation. By definition, everything they do is natural.

Why would the genetic alteration or enhancement of one more species - homo sapiens - be of any consequence? In what way are humans "more important" to nature, or "more crucial" to its proper functioning? In our short history on this planet, we have genetically modified and enhanced wheat and rice, dogs and cows, tulips and

orchids, oranges and potatoes. Why would interfering with the genetic legacy of the human species be any different?

Effects on Society

Cloning - like the Internet, the television, the car, electricity, the telegraph, and the wheel before it - is bound to have great social consequences. It may foster "embryo industries". It may lead to the exploitation of women - either willingly ("egg prostitution") or unwillingly ("womb slavery"). Charles Krauthammer, a columnist and psychiatrist, quoted in "The Economist", says:

"(Cloning) means the routinisation, the commercialisation, the commodification of the human embryo."

Exploiting anyone unwillingly is a crime, whether it involves cloning or white slavery. But why would egg donations and surrogate motherhood be considered problems? If we accept that life begins at the moment of fertilization and that a woman owns her body and everything within it - why should she not be allowed to sell her eggs or to host another's baby and how would these voluntary acts be morally repugnant? In any case, human eggs are already being bought and sold and the supply far exceeds the demand.

Moreover, full-fledged humans are routinely "routinised, commercialized, and commodified" by governments, corporations, religions, and other social institutions. Consider war, for instance - or commercial advertising. How is the "routinisation, commercialization, and commodification" of embryos more reprehensible that the

"routinisation, commercialization, and commodification" of fully formed human beings?

Curing and Saving Life

Cell therapy based on stem cells often leads to tissue rejection and necessitates costly and potentially dangerous immunosuppressive therapy. But when the stem cells are harvested from the patient himself and cloned, these problems are averted. Therapeutic cloning has vast untapped - though at this stage still remote - potential to improve the lives of hundreds of millions.

As far as "designer babies" go, pre-natal cloning and genetic engineering can be used to prevent disease or cure it, to suppress unwanted traits, and to enhance desired ones. It is the moral right of a parent to make sure that his progeny suffers less, enjoys life more, and attains the maximal level of welfare throughout his or her life.

That such technologies can be abused by over-zealous, or mentally unhealthy parents in collaboration with avaricious or unscrupulous doctors - should not prevent the vast majority of stable, caring, and sane parents from gaining access to them.

Appendix - Arguments from the Right to Life

I. Right to Life Arguments

According to cloning's detractors, the nucleus removed from the egg could otherwise have developed into a human being. Thus, removing the nucleus amounts to murder.

It is a fundamental principle of most moral theories that all human beings have a right to life. The existence of a

right implies obligations or duties of third parties towards the right-holder. One has a right AGAINST other people. The fact that one possesses a certain right - prescribes to others certain obligatory behaviours and proscribes certain acts or omissions. This Janus-like nature of rights and duties as two sides of the same ethical coin - creates great confusion. People often and easily confuse rights and their attendant duties or obligations with the morally decent, or even with the morally permissible. What one MUST do as a result of another's right - should never be confused with one SHOULD or OUGHT to do morally (in the absence of a right).

The right to life has eight distinct strains:

IA. The right to be brought to life

IB. The right to be born

IC. The right to have one's life maintained

ID. The right not to be killed

IE. The right to have one's life saved

IF. The right to save one's life (erroneously limited to the right to self-defence)

IG. The right to terminate one's life

IH. The right to have one's life terminated

IA. ***The Right to be Brought to Life***

Only living people have rights. There is a debate whether an egg is a living person - but there can be no doubt that it exists. Its rights - whatever they are - derive from the fact that it exists and that it has the potential to develop life.

The right to be brought to life (the right to become or to be) pertains to a yet non-alive entity and, therefore, is null and void. Had this right existed, it would have implied an obligation or duty to give life to the unborn and the not yet conceived. No such duty or obligation exist.

IB. *The Right to be Born*

The right to be born crystallizes at the moment of voluntary and intentional fertilization. If a scientist knowingly and intentionally causes in vitro fertilization for the explicit and express purpose of creating an embryo - then the resulting fertilized egg has a right to mature and be born. Furthermore, the born child has all the rights a child has against his parents: food, shelter, emotional nourishment, education, and so on.

It is debatable whether such rights of the fetus and, later, of the child, exist if there was no positive act of fertilization - but, on the contrary, an act which prevents possible fertilization, such as the removal of the nucleus (see IC below).

IC. *The Right to Have One's Life Maintained*

Does one have the right to maintain one's life and prolong them at other people's expense? Does one have the right to use other people's bodies, their property, their time, their resources and to deprive them of pleasure, comfort, material possessions, income, or any other thing?

The answer is yes and no.

No one has a right to sustain his or her life, maintain, or prolong them at another INDIVIDUAL's expense (no matter how minimal and insignificant the sacrifice required is). Still, if a contract has been signed - implicitly

or explicitly - between the parties, then such a right may crystallize in the contract and create corresponding duties and obligations, moral, as well as legal.

Example:

No fetus has a right to sustain its life, maintain, or prolong them at his mother's expense (no matter how minimal and insignificant the sacrifice required of her is). Still, if she signed a contract with the fetus - by knowingly and willingly and intentionally conceiving it - such a right has crystallized and has created corresponding duties and obligations of the mother towards her fetus.

On the other hand, everyone has a right to sustain his or her life, maintain, or prolong them at SOCIETY's expense (no matter how major and significant the resources required are). Still, if a contract has been signed - implicitly or explicitly - between the parties, then the abrogation of such a right may crystallize in the contract and create corresponding duties and obligations, moral, as well as legal.

Example:

Everyone has a right to sustain his or her life, maintain, or prolong them at society's expense. Public hospitals, state pension schemes, and police forces may be required to fulfill society's obligations - but fulfill them it must, no matter how major and significant the resources are. Still, if a person volunteered to join the army and a contract has been signed between the parties, then this right has been thus abrogated and the individual assumed certain duties and obligations, including the duty or obligation to give up his or her life to society.

ID. ***The Right not to be Killed***

Every person has the right not to be killed unjustly. What constitutes "just killing" is a matter for an ethical calculus in the framework of a social contract.

But does A's right not to be killed include the right against third parties that they refrain from enforcing the rights of other people against A? Does A's right not to be killed preclude the righting of wrongs committed by A against others - even if the righting of such wrongs means the killing of A?

Not so. There is a moral obligation to right wrongs (to restore the rights of other people). If A maintains or prolongs his life ONLY by violating the rights of others and these other people object to it - then A must be killed if that is the only way to right the wrong and re-assert their rights.

This is doubly true if A's existence is, at best, debatable. An egg does not a human being make. Removal of the nucleus is an important step in life-saving research. An unfertilized egg has no rights at all.

IE. *The Right to Have One's Life Saved*

There is no such right as there is no corresponding moral obligation or duty to save a life. This "right" is a demonstration of the aforementioned muddle between the morally commendable, desirable and decent ("ought", "should") and the morally obligatory, the result of other people's rights ("must").

In some countries, the obligation to save life is legally codified. But while the law of the land may create a LEGAL right and corresponding LEGAL obligations - it does not always or necessarily create a moral or an ethical right and corresponding moral duties and obligations.

IF. *The Right to Save One's Own Life*

The right to self-defence is a subset of the more general and all-pervasive right to save one's own life. One has the right to take certain actions or avoid taking certain actions in order to save his or her own life.

It is generally accepted that one has the right to kill a pursuer who knowingly and intentionally intends to take one's life. It is debatable, though, whether one has the right to kill an innocent person who unknowingly and unintentionally threatens to take one's life.

IG. *The Right to Terminate One's Life*

See "The Murder of Oneself".

IH. *The Right to Have One's Life Terminated*

The right to euthanasia, to have one's life terminated at will, is restricted by numerous social, ethical, and legal rules, principles, and considerations. In a nutshell - in many countries in the West one is thought to has a right to have one's life terminated with the help of third parties if one is going to die shortly anyway and if one is going to be tormented and humiliated by great and debilitating agony for the rest of one's remaining life if not helped to die. Of course, for one's wish to be helped to die to be accommodated, one has to be in sound mind and to will one's death knowingly, intentionally, and forcefully.

II. Issues in the Calculus of Rights

IIA. *The Hierarchy of Rights*

All human cultures have hierarchies of rights. These hierarchies reflect cultural mores and lores and there

cannot, therefore, be a universal, or eternal hierarchy.

In Western moral systems, the Right to Life supersedes all other rights (including the right to one's body, to comfort, to the avoidance of pain, to property, etc.).

Yet, this hierarchical arrangement does not help us to resolve cases in which there is a clash of EQUAL rights (for instance, the conflicting rights to life of two people). One way to decide among equally potent claims is randomly (by flipping a coin, or casting dice). Alternatively, we could add and subtract rights in a somewhat macabre arithmetic. If a mother's life is endangered by the continued existence of a fetus and assuming both of them have a right to life we can decide to kill the fetus by adding to the mother's right to life her right to her own body and thus outweighing the fetus' right to life.

IIB. ***The Difference between Killing and Letting Die***

There is an assumed difference between killing (taking life) and letting die (not saving a life). This is supported by IE above. While there is a right not to be killed - there is no right to have one's own life saved. Thus, while there is an obligation not to kill - there is no obligation to save a life.

IIC. ***Killing the Innocent***

Often the continued existence of an innocent person (IP) threatens to take the life of a victim (V). By "innocent" we mean "not guilty" - not responsible for killing V, not intending to kill V, and not knowing that V will be killed due to IP's actions or continued existence.

It is simple to decide to kill IP to save V if IP is going to

die anyway shortly, and the remaining life of V, if saved, will be much longer than the remaining life of IP, if not killed. All other variants require a calculus of hierarchically weighted rights. (See "Abortion and the Sanctity of Human Life" by Baruch A. Brody).

One form of calculus is the utilitarian theory. It calls for the maximization of utility (life, happiness, pleasure). In other words, the life, happiness, or pleasure of the many outweigh the life, happiness, or pleasure of the few. It is morally permissible to kill IP if the lives of two or more people will be saved as a result and there is no other way to save their lives. Despite strong philosophical objections to some of the premises of utilitarian theory - I agree with its practical prescriptions.

In this context - the dilemma of killing the innocent - one can also call upon the right to self defence. Does V have a right to kill IP regardless of any moral calculus of rights? Probably not. One is rarely justified in taking another's life to save one's own. But such behaviour cannot be condemned. Here we have the flip side of the confusion - understandable and perhaps inevitable behaviour (self defence) is mistaken for a MORAL RIGHT. That most V's would kill IP and that we would all sympathize with V and understand its behaviour does not mean that V had a RIGHT to kill IP. V may have had a right to kill IP - but this right is not automatic, nor is it all-encompassing.

Communism

The core countries of Central Europe (the Czech Republic, Hungary and, to a lesser extent, Poland) experienced industrial capitalism in the inter-war period. But the countries comprising the vast expanses of the New Independent States, Russia and the Balkan had no real

acquaintance with it. To them its zealous introduction is nothing but another ideological experiment and not a very rewarding one at that.

It is often said that there is no precedent to the extant fortean transition from totalitarian communism to liberal capitalism. This might well be true. Yet, nascent capitalism is not without historical example. The study of the birth of capitalism in feudal Europe may yet lead to some surprising and potentially useful insights.

The Barbarian conquest of the teetering Roman Empire (410-476 AD) heralded five centuries of existential insecurity and mayhem. Feudalism was the countryside's reaction to this damnation. It was a Hobson's choice and an explicit trade-off. Local lords defended their vassals against nomad intrusions in return for perpetual service bordering on slavery. A small percentage of the population lived on trade behind the massive walls of Medieval cities.

In most parts of central, eastern and southeastern Europe, feudalism endured well into the twentieth century. It was entrenched in the legal systems of the Ottoman Empire and of Czarist Russia. Elements of feudalism survived in the mellifluous and prolix prose of the Habsburg codices and patents. Most of the denizens of these moribund swathes of Europe were farmers - only the profligate and parasitic members of a distinct minority inhabited the cities. The present brobdignagian agricultural sectors in countries as diverse as Poland and Macedonia attest to this continuity of feudal practices.

Both manual labour and trade were derided in the Ancient World. This derision was partially eroded during the Dark Ages. It survived only in relation to trade and other "non-

productive" financial activities and even that not past the thirteenth century. Max Weber, in his opus, "The City" (New York, MacMillan, 1958) described this mental shift of paradigm thus: "The medieval citizen was on the way towards becoming an economic man ... the ancient citizen was a political man."

What communism did to the lands it permeated was to freeze this early feudal frame of mind of disdain towards "non-productive", "city-based" vocations. Agricultural and industrial occupations were romantically extolled. The cities were berated as hubs of moral turpitude, decadence and greed. Political awareness was made a precondition for personal survival and advancement. The clock was turned back. Weber's "Homo Economicus" yielded to communism's supercilious version of the ancient Greeks' "Zoon Politikon". John of Salisbury might as well have been writing for a communist agitprop department when he penned this in "Policraticus" (1159 AD): "...if (rich people, people with private property) have been stuffed through excessive greed and if they hold in their contents too obstinately, (they) give rise to countless and incurable illnesses and, through their vices, can bring about the ruin of the body as a whole". The body in the text being the body politic.

This inimical attitude should have come as no surprise to students of either urban realities or of communism, their parricidal off-spring. The city liberated its citizens from the bondage of the feudal labour contract. And it acted as the supreme guarantor of the rights of private property. It relied on its trading and economic prowess to obtain and secure political autonomy. John of Paris, arguably one of the first capitalist cities (at least according to Braudel), wrote: "(The individual) had a right to property which was

not with impunity to be interfered with by superior authority - because it was acquired by (his) own efforts" (in Georges Duby, "The age of the Cathedrals: Art and Society, 980-1420, Chicago, Chicago University Press, 1981). Despite the fact that communism was an urban phenomenon (albeit with rustic roots) - it abnegated these "bourgeoisie" values. Communal ownership replaced individual property and servitude to the state replaced individualism. In communism, feudalism was restored. Even geographical mobility was severely curtailed, as was the case in feudalism. The doctrine of the Communist party monopolized all modes of thought and perception - very much as the church-condoned religious strain did 700 years before. Communism was characterized by tensions between party, state and the economy - exactly as the medieval polity was plagued by conflicts between church, king and merchants-bankers. Paradoxically, communism was a faithful re-enactment of pre-capitalist history.

Communism should be well distinguished from Marxism. Still, it is ironic that even Marx's "scientific materialism" has an equivalent in the twilight times of feudalism. The eleventh and twelfth centuries witnessed a concerted effort by medieval scholars to apply "scientific" principles and human knowledge to the solution of social problems. The historian R. W. Southern called this period "scientific humanism" (in "Flesh and Stone" by Richard Sennett, London, Faber and Faber, 1994). We mentioned John of Salisbury's "Policraticus". It was an effort to map political functions and interactions into their human physiological equivalents. The king, for instance, was the brain of the body politic. Merchants and bankers were the insatiable stomach. But this apparently simplistic analogy masked a schismatic debate. Should a person's position in life be

determined by his political affiliation and "natural" place in the order of things - or should it be the result of his capacities and their exercise (merit)? Do the ever changing contents of the economic "stomach", its kaleidoscopic innovativeness, its "permanent revolution" and its propensity to assume "irrational" risks - adversely affect this natural order which, after all, is based on tradition and routine? In short: is there an inherent incompatibility between the order of the world (read: the church doctrine) and meritocratic (democratic) capitalism? Could Thomas Aquinas' "Summa Theologica" (the world as the body of Christ) be reconciled with "Stadt Luft Macht Frei" ("city air liberates" - the sign above the gates of the cities of the Hanseatic League)?

This is the eternal tension between the individual and the group. Individualism and communism are not new to history and they have always been in conflict. To compare the communist party to the church is a well-worn cliché. Both religions - the secular and the divine - were threatened by the spirit of freedom and initiative embodied in urban culture, commerce and finance. The order they sought to establish, propagate and perpetuate conflicted with basic human drives and desires. Communism was a throwback to the days before the ascent of the urbane, capitalistic, sophisticated, incredulous, individualistic and risqué West. it sought to substitute one kind of "scientific" determinism (the body politic of Christ) by another (the body politic of "the Proletariat"). It failed and when it unravelled, it revealed a landscape of toxic devastation, frozen in time, an ossified natural order bereft of content and adherents. The post-communist countries have to pick up where it left them, centuries ago. It is not so much a problem of lacking infrastructure as it is an issue of pathologized minds, not

so much a matter of the body as a dysfunction of the psyche.

The historian Walter Ullman says that John of Salisbury thought (850 years ago) that "the individual's standing within society... (should be) based upon his office or his official function ... (the greater this function was) the more scope it had, the weightier it was, the more rights the individual had." (Walter Ullman, "The Individual and Society in the Middle Ages", Baltimore, Johns Hopkins University Press, 1966). I cannot conceive of a member of the communist nomenklatura who would not have adopted this formula wholeheartedly. If modern capitalism can be described as "back to the future", communism was surely "forward to the past".

Competition

*A. **THE PHILOSOPHY OF COMPETITION***

The aims of competition (anti-trust) laws are to ensure that consumers pay the lowest possible price (=the most efficient price) coupled with the highest quality of the goods and services which they consume. This, according to current economic theories, can be achieved only through effective competition. Competition not only reduces particular prices of specific goods and services - it also tends to have a deflationary effect by reducing the general price level. It pits consumers against producers, producers against other producers (in the battle to win the heart of consumers) and even consumers against consumers (for example in the healthcare sector in the USA). This everlasting conflict does the miracle of increasing quality with lower prices. Think about the vast improvement on both scores in electrical appliances. The VCR and PC of yesteryear cost thrice as much and

provided one third the functions at one tenth the speed.

Competition has innumerable advantages:

0.It encourages manufacturers and service providers to be more efficient, to better respond to the needs of their customers, to innovate, to initiate, to venture. In professional words: it optimizes the allocation of resources at the firm level and, as a result, throughout the national economy.
More simply: producers do not waste resources (capital), consumers and businesses pay less for the same goods and services and, as a result, consumption grows to the benefit of all involved.

b. The other beneficial effect seems, at first sight, to be an adverse one: competition weeds out the failures, the incompetents, the inefficient, the fat and slow to respond. Competitors pressure one another to be more efficient, leaner and meaner. This is the very essence of capitalism. It is wrong to say that only the consumer benefits. If a firm improves itself, re-engineers its production processes, introduces new management techniques, modernizes - in order to fight the competition, it stands to reason that it will reap the rewards. Competition benefits the economy, as a whole, the consumers and other producers by a process of natural economic selection where only the fittest survive. Those who are not fit to survive die out and cease to waste the rare resources of humanity.

Thus, paradoxically, the poorer the country, the less resources it has - the more it is in need of competition. Only competition can secure the proper and most efficient

use of its scarce resources, a maximization of its output and the maximal welfare of its citizens (consumers). Moreover, we tend to forget that the biggest consumers are businesses (firms). If the local phone company is inefficient (because no one competes with it, being a monopoly) - firms will suffer the most: higher charges, bad connections, lost time, effort, money and business. If the banks are dysfunctional (because there is no foreign competition), they will not properly service their clients and firms will collapse because of lack of liquidity. It is the business sector in poor countries which should head the crusade to open the country to competition.

Unfortunately, the first discernible results of the introduction of free marketry are unemployment and business closures. People and firms lack the vision, the knowledge and the wherewithal needed to support competition. They fiercely oppose it and governments throughout the world bow to protectionist measures. To no avail. Closing a country to competition will only exacerbate the very conditions which necessitate its opening up. At the end of such a wrong path awaits economic disaster and the forced entry of competitors. A country which closes itself to the world - will be forced to sell itself cheaply as its economy will become more and more inefficient, less and less competitive.

The Competition Laws aim to establish fairness of commercial conduct among entrepreneurs and competitors which are the sources of said competition and innovation.

Experience - later buttressed by research - helped to establish the following four principles:

1. There should be no barriers to the entry of new market players (barring criminal and moral

barriers to certain types of activities and to certain goods and services offered).

1. A larger scale of operation does introduce economies of scale (and thus lowers prices). This, however, is not infinitely true. There is a Minimum Efficient Scale - MES - beyond which prices will begin to rise due to monopolization of the markets. This MES was empirically fixed at 10% of the market in any one good or service. In other words: companies should be encouraged to capture up to 10% of their market (=to lower prices) and discouraged to cross this barrier, lest prices tend to rise again.

1. Efficient competition does not exist when a market is controlled by less than 10 firms with big size differences. An oligopoly should be declared whenever 4 firms control more than 40% of the market and the biggest of them controls more than 12% of it.

1. A competitive price will be comprised of a minimal cost plus an equilibrium profit which does not encourage either an exit of firms (because it is too low), nor their entry (because it is too high).

Left to their own devices, firms tend to liquidate competitors (predation), buy them out or collude with them to raise prices. The 1890 Sherman Antitrust Act in the USA forbade the latter (section 1) and prohibited monopolization or dumping as a method to eliminate competitors. Later acts (Clayton, 1914 and the Federal Trade Commission Act of the same year) added forbidden activities: tying arrangements, boycotts, territorial divisions, non-competitive mergers, price discrimination,

exclusive dealing, unfair acts, practices and methods. Both consumers and producers who felt offended were given access to the Justice Department and to the FTC or the right to sue in a federal court and be eligible to receive treble damages.

It is only fair to mention the "intellectual competition", which opposes the above premises. Many important economists thought (and still do) that competition laws represent an unwarranted and harmful intervention of the State in the markets. Some believed that the State should own important industries (J.K. Galbraith), others - that industries should be encouraged to grow because only size guarantees survival, lower prices and innovation (Ellis Hawley). Yet others supported the cause of laissez faire (Marc Eisner).

These three antithetical approaches are, by no means, new. One led to socialism and communism, the other to corporatism and monopolies and the third to jungle-ization of the market (what the Europeans derisively call: the Anglo-Saxon model).

B. ***HISTORICAL AND LEGAL CONSIDERATIONS***

Why does the State involve itself in the machinations of the free market? Because often markets fail or are unable or unwilling to provide goods, services, or competition. The purpose of competition laws is to secure a competitive marketplace and thus protect the consumer from unfair, anti-competitive practices. The latter tend to increase prices and reduce the availability and quality of goods and services offered to the consumer.

Such state intervention is usually done by establishing a governmental Authority with full powers to regulate the

markets and ensure their fairness and accessibility to new entrants. Lately, international collaboration between such authorities yielded a measure of harmonization and coordinated action (especially in cases of trusts which are the results of mergers and acquisitions).

Yet, competition law embodies an inherent conflict: while protecting local consumers from monopolies, cartels and oligopolies - it ignores the very same practices when directed at foreign consumers. Cartels related to the country's foreign trade are allowed even under GATT/WTO rules (in cases of dumping or excessive export subsidies). Put simply: governments regard acts which are criminal as legal if they are directed at foreign consumers or are part of the process of foreign trade.

A country such as Macedonia - poor and in need of establishing its export sector - should include in its competition law at least two protective measures against these discriminatory practices:

1. ***Blocking Statutes*** - which prohibit its legal entities from collaborating with legal procedures in other countries to the extent that this collaboration adversely affects the local export industry.

1. ***Clawback Provisions*** - which will enable the local courts to order the refund of any penalty payment decreed or imposed by a foreign court on a local legal entity and which exceeds actual damage inflicted by unfair trade practices of said local legal entity. US courts, for instance, are allowed to impose treble damages on infringing foreign entities. The clawback provisions are used to battle this judicial aggression.

Competition policy is the antithesis of industrial policy. The former wishes to ensure the conditions and the rules of the game - the latter to recruit the players, train them and win the game. The origin of the former is in the 19^{th} century USA and from there it spread to (really was imposed on) Germany and Japan, the defeated countries in the 2^{nd} World War. The European Community (EC) incorporated a competition policy in articles 85 and 86 of the Rome Convention and in Regulation 17 of the Council of Ministers, 1962.

Still, the two most important economic blocks of our time have different goals in mind when implementing competition policies. The USA is more interested in economic (and econometric) results while the EU emphasizes social, regional development and political consequences. The EU also protects the rights of small businesses more vigorously and, to some extent, sacrifices intellectual property rights on the altar of fairness and the free movement of goods and services.

Put differently: the USA protects the producers and the EU shields the consumer. The USA is interested in the maximization of output at whatever social cost - the EU is interested in the creation of a just society, a liveable community, even if the economic results will be less than optimal.

There is little doubt that Macedonia should follow the EU example. Geographically, it is a part of Europe and, one day, will be integrated in the EU. It is socially sensitive, export oriented, its economy is negligible and its consumers are poor, it is besieged by monopolies and oligopolies.

In my view, its competition laws should already

incorporate the important elements of the EU (Community) legislation and even explicitly state so in the preamble to the law. Other, mightier, countries have done so. Italy, for instance, modelled its Law number 287 dated 10/10/90 "Competition and Fair Trading Act" after the EC legislation. The law explicitly says so.

The first serious attempt at international harmonization of national antitrust laws was the Havana Charter of 1947. It called for the creation of an umbrella operating organization (the International Trade Organization or "ITO") and incorporated an extensive body of universal antitrust rules in nine of its articles. Members were required to "prevent business practices affecting international trade which restrained competition, limited access to markets, or fostered monopolistic control whenever such practices had harmful effects on the expansion of production or trade". the latter included:

0.Fixing prices, terms, or conditions to be observed in dealing with others in the purchase, sale, or lease of any product;

b. Excluding enterprises from, or allocating or dividing, any territorial market or field of business activity, or allocating customers, or fixing sales quotas or purchase quotas;

c. Discriminating against particular enterprises;

d. Limiting production or fixing production quotas;

e. Preventing by agreement the development or application of technology or invention, whether patented or non-patented; and

f. Extending the use of rights under intellectual

property protections to matters which, according to a member's laws and regulations, are not within the scope of such grants, or to products or conditions of production, use, or sale which are not likewise the subject of such grants.

GATT 1947 was a mere bridging agreement but the Havana Charter languished and died due to the objections of a protectionist US Senate.

There are no antitrust/competition rules either in GATT 1947 or in GATT/WTO 1994, but their provisions on antidumping and countervailing duty actions and government subsidies constitute some elements of a more general antitrust/competition law.

GATT, though, has an International Antitrust Code Writing Group which produced a "Draft International Antitrust Code" (10/7/93). It is reprinted in §II, 64 Antitrust & Trade Regulation Reporter (BNA), Special Supplement at S-3 (19/8/93).

Four principles guided the (mostly German) authors:

1. National laws should be applied to solve international competition problems;

1. Parties, regardless of origin, should be treated as locals;

1. A minimum standard for national antitrust rules should be set (stricter measures would be welcome); and

1. The establishment of an international authority to settle disputes between parties over antitrust issues.

The 29 (well-off) members of the Organization for Economic Cooperation and Development (OECD) formed rules governing the harmonization and coordination of international antitrust/competition regulation among its member nations ("The Revised Recommendation of the OECD Council Concerning Cooperation between Member Countries on Restrictive Business Practices Affecting International Trade," OECD Doc. No. C(86)44 (Final) (June 5, 1986), also in 25 International Legal Materials 1629 (1986). A revised version was reissued. According to it, " …Enterprises should refrain from abuses of a dominant market position; permit purchasers, distributors, and suppliers to freely conduct their businesses; refrain from cartels or restrictive agreements; and consult and cooperate with competent authorities of interested countries".

An agency in one of the member countries tackling an antitrust case, usually notifies another member country whenever an antitrust enforcement action may affect important interests of that country or its nationals (see: OECD Recommendations on Predatory Pricing, 1989).

The United States has bilateral antitrust agreements with Australia, Canada, and Germany, which was followed by a bilateral agreement with the EU in 1991. These provide for coordinated antitrust investigations and prosecutions. The United States thus reduced the legal and political obstacles which faced its extraterritorial prosecutions and enforcement. The agreements require one party to notify the other of imminent antitrust actions, to share relevant information, and to consult on potential policy changes. The EU-U.S. Agreement contains a "comity" principle under which each side promises to take into consideration the other's interests when considering antitrust

prosecutions. A similar principle is at the basis of Chapter 15 of the North American Free Trade Agreement (NAFTA) - cooperation on antitrust matters.

The United Nations Conference on Restrictive Business Practices adopted a code of conduct in 1979/1980 that was later integrated as a U.N. General Assembly Resolution [U.N. Doc. TD/RBP/10 (1980)]: "The Set of Multilaterally Agreed Equitable Principles and Rules".

According to its provisions, "independent enterprises should refrain from certain practices when they would limit access to markets or otherwise unduly restrain competition".

The following business practices are prohibited:

1. Agreements to fix prices (including export and import prices);

1. Collusive tendering;

1. Market or customer allocation (division) arrangements;

1. Allocation of sales or production by quota;

1. Collective action to enforce arrangements, e.g., by concerted refusals to deal;

1. Concerted refusal to sell to potential importers; and

1. Collective denial of access to an arrangement, or association, where such access is crucial to competition and such denial might hamper it. In addition, businesses are forbidden to engage in the abuse of a dominant position in the market by

limiting access to it or by otherwise restraining competition by:

a. Predatory behaviour towards competitors;

b. Discriminatory pricing or terms or conditions in the supply or purchase of goods or services;

c. Mergers, takeovers, joint ventures, or other acquisitions of control;

d. Fixing prices for exported goods or resold imported goods;

e. Import restrictions on legitimately-marked trademarked goods;

f. Unjustifiably - whether partially or completely - refusing to deal on an enterprise's customary commercial terms, making the supply of goods or services dependent on restrictions on the distribution or manufacturer of other goods, imposing restrictions on the resale or exportation of the same or other goods, and purchase "tie-ins".

*C. **ANTI - COMPETITIVE STRATEGIES***

Any Competition Law in Macedonia should, in my view, excplicitly include strict prohibitions of the following practices (further details can be found in Porter's book - "Competitive Strategy").

These practices characterize the Macedonian market.

They influence the Macedonian economy by discouraging foreign investors, encouraging inefficiencies and mismanagement, sustaining artificially high prices, misallocating very scarce resources, increasing unemployment, fostering corrupt and criminal practices and, in general, preventing the growth that Macedonia could have attained.

Strategies for Monopolization

Exclude competitors from distribution channels. - This is common practice in many countries. Open threats are made by the manufacturers of popular products: "If you distribute my competitor's products - you cannot distribute mine. So, choose." Naturally, retail outlets, dealers and distributors will always prefer the popular product to the new. This practice not only blocks competition - but also innovation, trade and choice or variety.

Buy up competitors and potential competitors. - There is nothing wrong with that. Under certain circumstances, this is even desirable. Think about the Banking System: it is always better to have fewer banks with bigger capital than many small banks with capital inadequacy (remember the TAT affair). So, consolidation is sometimes welcome, especially where scale represents viability and a higher degree of consumer protection. The line is thin and is composed of both quantitative and qualitative criteria. One way to measure the desirability of such mergers and acquisitions (M&A) is the level of market concentration following the M&A. Is a new monopoly created? Will the new entity be able to set prices unperturbed? stamp out its other competitors? If so, it is not desirable and should be prevented.

Every merger in the USA must be approved by the

antitrust authorities. When multinationals merge, they must get the approval of all the competition authorities in all the territories in which they operate. The purchase of "Intuit" by "Microsoft" was prevented by the antitrust department (the "Trust-busters"). A host of airlines was conducting a drawn out battle with competition authorities in the EU, UK and the USA lately.

Use predatory [below-cost] pricing (also known as dumping) to eliminate competitors. - This tactic is mostly used by manufacturers in developing or emerging economies and in Japan. It consists of "pricing the competition out of the markets". The predator sells his products at a price which is lower even than the costs of production. The result is that he swamps the market, driving out all other competitors. Once he is left alone - he raises his prices back to normal and, often, above normal. The dumper loses money in the dumping operation and compensates for these losses by charging inflated prices after having the competition eliminated.

Raise scale-economy barriers. - Take unfair advantage of size and the resulting scale economies to force conditions upon the competition or upon the distribution channels. In many countries Big Industry lobbies for a legislation which will fit its purposes and exclude its (smaller) competitors.

Increase "market power (share) and hence profit potential".

Study the industry's "potential" structure and ways it can be made less competitive. - Even thinking about sin or planning it should be prohibited. Many industries have "think tanks" and experts whose sole function is to show the firm the way to minimize competition and to increase

its market shares. Admittedly, the line is very thin: when does a Marketing Plan become criminal?

Arrange for a "rise in entry barriers to block later entrants" and "inflict losses on the entrant". - This could be done by imposing bureaucratic obstacles (of licencing, permits and taxation), scale hindrances (no possibility to distribute small quantities), "old boy networks" which share political clout and research and development, using intellectual property right to block new entrants and other methods too numerous to recount. An effective law should block any action which prevents new entry to a market.

Buy up firms in other industries "as a base from which to change industry structures" there. - This is a way of securing exclusive sources of supply of raw materials, services and complementing products. If a company owns its suppliers and they are single or almost single sources of supply - in effect it has monopolized the market. If a software company owns another software company with a product which can be incorporated in its own products - and the two have substantial market shares in their markets - then their dominant positions will reinforce each other's.

"Find ways to encourage particular competitors out of the industry". - If you can't intimidate your competitors you might wish to "make them an offer that they cannot refuse". One way is to buy them, to bribe the key personnel, to offer tempting opportunities in other markets, to swap markets (I will give you my market share in a market which I do not really care about and you will give me your market share in a market in which we are competitors). Other ways are to give the competitors assets, distribution channels and so on providing that they

collude in a cartel.

"Send signals to encourage competition to exit" the industry. - Such signals could be threats, promises, policy measures, attacks on the integrity and quality of the competitor, announcement that the company has set a certain market share as its goal (and will, therefore, not tolerate anyone trying to prevent it from attaining this market share) and any action which directly or indirectly intimidates or convinces competitors to leave the industry. Such an action need not be positive - it can be negative, need not be done by the company - can be done by its political proxies, need not be planned - could be accidental. The results are what matters.

Macedonia's Competition Law should outlaw the following, as well:

'Intimidate' Competitors

Raise "mobility" barriers to keep competitors in the least-profitable segments of the industry. - This is a tactic which preserves the appearance of competition while subverting it. Certain segments, usually less profitable or too small to be of interest, or with dim growth prospects, or which are likely to be opened to fierce domestic and foreign competition are left to the competition. The more lucrative parts of the markets are zealously guarded by the company. Through legislation, policy measures, withholding of technology and know-how - the firm prevents its competitors from crossing the river into its protected turf.

Let little firms "develop" an industry and then come in and take it over. - This is precisely what Netscape is saying that Microsoft is doing to it. Netscape developed

the now lucrative Browser Application market. Microsoft was wrong in discarding the Internet as a fad. When it was found to be wrong - Microsoft reversed its position and came up with its own (then, technologically inferior) browser (the Internet Explorer). It offered it free (sound suspiciously like dumping) to buyers of its operating system, "Windows". Inevitably it captured more than 30% of the market, crowding out Netscape. It is the view of the antitrust authorities in the USA that Microsoft utilized its dominant position in one market (that of the Operating Systems) to annihilate a competitor in another (that of the browsers).

Engage in "promotional warfare" by "attacking shares of others". - This is when the gist of a marketing, lobbying, or advertising campaign is to capture the market share of the competition. Direct attack is then made on the competition just in order to abolish it. To sell more in order to maximize profits, is allowed and meritorious - to sell more in order to eliminate the competition is wrong and should be disallowed.

Use price retaliation to "discipline" competitors. - Through dumping or even unreasonable and excessive discounting. This could be achieved not only through the price itself. An exceedingly long credit term offered to a distributor or to a buyer is a way of reducing the price. The same applies to sales, promotions, vouchers, gifts. They are all ways to reduce the effective price. The customer calculates the money value of these benefits and deducts them from the price.

Establish a "pattern" of severe retaliation against challengers to "communicate commitment" to resist efforts to win market share. - Again, this retaliation can take a myriad of forms: malicious advertising, a media

campaign, adverse legislation, blocking distribution channels, staging a hostile bid in the stock exchange just in order to disrupt the proper and orderly management of the competitor. Anything which derails the competitor whenever he makes a headway, gains a larger market share, launches a new product - can be construed as a "pattern of retaliation".

Maintain excess capacity to be used for "fighting" purposes to discipline ambitious rivals. - Such excess capacity could belong to the offending firm or - through cartel or other arrangements - to a group of offending firms.

Publicize one's "commitment to resist entry" into the market.

Publicize the fact that one has a "monitoring system" to detect any aggressive acts of competitors.

Announce in advance "market share targets" to intimidate competitors into yielding their market share.

Proliferate Brand Names

Contract with customers to "meet or match all price cuts (offered by the competition)" thus denying rivals any hope of growth through price competition.

Secure a big enough market share to "corner" the "learning curve," thus denying rivals an opportunity to become efficient. - Efficiency is gained by an increase in market share. Such an increase leads to new demands imposed by the market, to modernization, innovation, the introduction of new management techniques (example: Just In Time inventory management), joint ventures, training of personnel, technology transfers, development

of proprietary intellectual property and so on. Deprived of a growing market share - the competitor will not feel pressurized to learn and to better itself. In due time, it will dwindle and die.

Acquire a wall of "defensive" patents to deny competitors access to the latest technology.

"Harvest" market position in a no-growth industry by raising prices, lowering quality, and stopping all investment and advertising in it.

Create or encourage capital scarcity. - By colluding with sources of financing (e.g., regional, national, or investment banks), by absorbing any capital offered by the State, by the capital markets, through the banks, by spreading malicious news which serve to lower the credit-worthiness of the competition, by legislating special tax and financing loopholes and so on.

Introduce high advertising-intensity. - This is very difficult to measure. There could be no objective criteria which will not go against the grain of the fundamental right to freedom of expression. However, truth in advertising should be strictly imposed. Practices such as dragging a competitor through the mud or derogatorily referring to its products or services in advertising campaigns should be banned and the ban should be enforced.

Proliferate "brand names" to make it too expensive for small firms to grow. - By creating and maintaining a host of absolutely unnecessary brandnames, the competition's brandnames are crowded out. Again, this cannot be legislated against. A firm has the right to create and maintain as many brandnames as it wishes. The market

will exact a price and thus punish such a company because, ultimately, its own brandname will suffer from the proliferation.

Get a "corner" (control, manipulate and regulate) on raw materials, government licenses, contracts, subsidies, and patents (and, of course, prevent the competition from having access to them).

Build up "political capital" with government bodies; overseas, get "protection" from "the host government".

'Vertical' Barriers

Practice a "preemptive strategy" by capturing all capacity expansion in the industry (simply buying it, leasing it or taking over the companies that own or develop it).

This serves to "deny competitors enough residual demand". Residual demand, as we previously explained, causes firms to be efficient. Once efficient, they develop enough power to "credibly retaliate" and thereby "enforce an orderly expansion process" to prevent overcapacity

Create "switching" costs. - Through legislation, bureaucracy, control of the media, cornering advertising space in the media, controlling infrastructure, owning intellectual property, owning, controlling or intimidating distribution channels and suppliers and so on.

Impose vertical "price squeezes". - By owning, controlling, colluding with, or intimidating suppliers and distributors, marketing channels and wholesale and retail outlets into not collaborating with the competition.

Practice vertical integration (buying suppliers and

distribution and marketing channels).

This has the following effects:

The firm gains a "tap (access) into technology" and marketing information in an adjacent industry. It defends itself against a supplier's too-high or even realistic prices.

It defends itself against foreclosure, bankruptcy and restructuring or reorganization. Owning suppliers means that the supplies do not cease even when payment is not affected, for instance.

It "protects proprietary information from suppliers" - otherwise the firm might have to give outsiders access to its technology, processes, formulas and other intellectual property.

It raises entry and mobility barriers against competitors. This is why the State should legislate and act against any purchase, or other types of control of suppliers and marketing channels which service competitors and thus enhance competition.

It serves to "prove that a threat of full integration is credible" and thus intimidate competitors.

Finally, it gets "detailed cost information" in an adjacent industry (but doesn't integrate it into a "highly competitive industry").

"Capture distribution outlets" by vertical integration to "increase barriers".

'Consolidate' the Industry

Send "signals" to threaten, bluff, preempt, or collude with competitors.

Use a "fighting brand" (a low-price brand used only for price-cutting).

Use "cross parry" (retaliate in another part of a competitor's market).

Harass competitors with antitrust suits and other litigious techniques.

Use "brute force" ("massed resources" applied "with finesse") to attack competitors or use "focal points" of pressure to collude with competitors on price.

"Load up customers" at cut-rate prices to "deny new entrants a base" and force them to "withdraw" from market.

Practice "buyer selection," focusing on those that are the most "vulnerable" (easiest to overcharge) and discriminating against and for certain types of consumers.

"Consolidate" the industry so as to "overcome industry fragmentation".

This arguments is highly successful with US federal courts in the last decade. There is an intuitive feeling that few is better and that a consolidated industry is bound to be more efficient, better able to compete and to survive and, ultimately, better positioned to lower prices, to conduct costly research and development and to increase quality. In the words of Porter: "(The) pay-off to consolidating a fragmented industry can be high because... small and weak competitors offer little threat of retaliation."

Time one's own capacity additions; never sell old capacity "to anyone who will use it in the same industry" and buy out "and retire competitors' capacity".

Complexity

"Everything is simpler than you think and at the same time more complex than you imagine."
(Johann Wolfgang von Goethe)

Complexity rises spontaneously in nature through processes such as self-organization. Emergent phenomena are common as are emergent traits, not reducible to basic components, interactions, or properties.

Complexity does not, therefore, imply the existence of a designer or a design. Complexity does not imply the existence of intelligence and sentient beings. On the contrary, complexity usually points towards a natural source and a random origin. Complexity and artificiality are often incompatible.

Artificial designs and objects are found only in unexpected ("unnatural") contexts and environments. Natural objects are totally predictable and expected. Artificial creations are efficient and, therefore, simple and parsimonious. Natural objects and processes are not.

As Seth Shostak notes in his excellent essay, titled "SETI and Intelligent Design", evolution experiments with numerous dead ends before it yields a single adapted biological entity. DNA is far from optimized: it contains inordinate amounts of junk. Our bodies come replete with dysfunctional appendages and redundant organs. Lightning bolts emit energy all over the electromagnetic

spectrum. Pulsars and interstellar gas clouds spew radiation over the entire radio spectrum. The energy of the Sun is ubiquitous over the entire optical and thermal range. No intelligent engineer - human or not - would be so wasteful.

Confusing artificiality with complexity is not the only terminological conundrum.

Complexity and simplicity are often, and intuitively, regarded as two extremes of the same continuum, or spectrum. Yet, this may be a simplistic view, indeed.

Simple procedures (codes, programs), in nature as well as in computing, often yield the most complex results. Where does the complexity reside, if not in the simple program that created it? A minimal number of primitive interactions occur in a primordial soup and, presto, life. Was life somehow embedded in the primordial soup all along? Or in the interactions? Or in the combination of substrate and interactions?

Complex processes yield simple products (think about products of thinking such as a newspaper article, or a poem, or manufactured goods such as a sewing thread). What happened to the complexity? Was it somehow reduced, "absorbed, digested, or assimilated"? Is it a general rule that, given sufficient time and resources, the simple can become complex and the complex reduced to the simple? Is it only a matter of computation?

We can resolve these apparent contradictions by closely examining the categories we use.

Perhaps simplicity and complexity are categorical illusions, the outcomes of limitations inherent in our system of symbols (in our language).

We label something "complex" when we use a great number of symbols to describe it. But, surely, the choices we make (regarding the number of symbols we use) teach us nothing about complexity, a real phenomenon!

A straight line can be described with three symbols (A, B, and the distance between them) - or with three billion symbols (a subset of the discrete points which make up the line and their inter-relatedness, their function). But whatever the number of symbols we choose to employ, however complex our level of description, it has nothing to do with the straight line or with its "real world" traits. The straight line is not rendered more (or less) complex or orderly by our choice of level of (meta) description and language elements.

The simple (and ordered) can be regarded as the tip of the complexity iceberg, or as part of a complex, interconnected whole, or hologramically, as encompassing the complex (the same way all particles are contained in all other particles). Still, these models merely reflect choices of descriptive language, with no bearing on reality.

Perhaps complexity and simplicity are not related at all, either quantitatively, or qualitatively. Perhaps complexity is not simply more simplicity. Perhaps there is no organizational principle tying them to one another. Complexity is often an emergent phenomenon, not reducible to simplicity.

The third possibility is that somehow, perhaps through human intervention, complexity yields simplicity and simplicity yields complexity (via pattern identification, the application of rules, classification, and other human pursuits). This dependence on human input would explain

the convergence of the behaviors of all complex systems on to a tiny sliver of the state (or phase) space (sort of a mega attractor basin). According to this view, Man is the creator of simplicity and complexity alike but they do have a real and independent existence thereafter (the Copenhagen interpretation of a Quantum Mechanics).

Still, these twin notions of simplicity and complexity give rise to numerous theoretical and philosophical complications.

Consider life.

In human (artificial and intelligent) technology, every thing and every action has a function within a "scheme of things". Goals are set, plans made, designs help to implement the plans.

Not so with life. Living things seem to be prone to disorientated thoughts, or the absorption and processing of absolutely irrelevant and inconsequential data. Moreover, these laboriously accumulated databases vanish instantaneously with death. The organism is akin to a computer which processes data using elaborate software and then turns itself off after 15-80 years, erasing all its work.

Most of us believe that what appears to be meaningless and functionless supports the meaningful and functional and leads to them. The complex and the meaningless (or at least the incomprehensible) always seem to resolve to the simple and the meaningful. Thus, if the complex is meaningless and disordered then order must somehow be connected to meaning and to simplicity (through the principles of organization and interaction).

Moreover, complex systems are inseparable from their

environment whose feedback induces their self-organization. Our discrete, observer-observed, approach to the Universe is, thus, deeply inadequate when applied to complex systems. These systems cannot be defined, described, or understood in isolation from their environment. They are one with their surroundings.

Many complex systems display emergent properties. These cannot be predicted even with perfect knowledge about said systems. We can say that the complex systems are creative and intuitive, even when not sentient, or intelligent. Must intuition and creativity be predicated on intelligence, consciousness, or sentience?

Thus, ultimately, complexity touches upon very essential questions of who we, what are we for, how we create, and how we evolve. It is not a simple matter, that...

TECHNICAL NOTE - Complexity Theory and Ambiguity or Vagueness

A Glossary of the terms used here

Ambiguity (or indeterminacy, in deconstructivist parlance) is when a statement or string (word, sentence, theorem, or expression) has two or more distinct meanings either lexically (e.g., homonyms), or because of its grammar or syntax (e.g., amphiboly). It is the context, which helps us to choose the right or intended meaning ("contextual disambiguating" which often leads to a focal meaning).

Vagueness arises when there are "borderline cases" of the existing application of a concept (or a predicate). When is a person tall? When does a collection of sand grains become a heap (the sorites or heap paradox)?, etc. Fuzzy logic truth values do not eliminate vagueness - they only

assign continuous values ("fuzzy sets") to concepts ("prototypes").

Open texture is when there may be "borderline cases" in the future application of a concept (or a predicate). While vagueness can be minimized by specifying rules (through precisifaction, or supervaluation) - open texture cannot because we cannot predict future "borderline cases".

It would seem that a complexity theory formalism can accurately describe both ambiguity and vagueness:

Language can be construed as a self-organizing network, replete with self-organized criticality.

Language can also be viewed as a Production System (Iterated Function Systems coupled with Lindenmeyer L-Systems and Schemas to yield Classifiers Systems). To use Holland's vocabulary, language is a set of Constrained Generating Procedures.

"Vague objects" (with vague spatial or temporal boundaries) are, actually, best represented by fractals. They are not indeterminate (only their boundaries are). Moreover, self-similarity is maintained. Consider a mountain - where does it start or end and what, precisely, does it include? A fractal curve (boundary) is an apt mathematical treatment of this question.

Indeterminacy can be described as the result of bifurcation leading to competing, distinct, but equally valid, meanings.

Borderline cases (and vagueness) arise at the "edge of chaos" - in concepts and predicates with co-evolving static and chaotic elements.

(Focal) meanings can be thought of as attractors.

Contexts can be thought of as attractor landscapes in the phase space of language. They can also be described as fitness landscapes with optimum epistasis (interdependence of values assigned to meanings).

The process of deriving meaning (or disambiguating) is akin to tracing a basin of attraction. It can be described as a perturbation in a transient, leading to a stable state.

Continuum

The problem of continuum versus discreteness seems to be related to the issue of infinity and finiteness. The number of points in a line served as the logical floodgate which led to the development of Set Theory by Cantor at the end of the 19th century. It took almost another century to demonstrate the problematic nature of some of Cantor's thinking (Cohen completed Godel's work in 1963). But continuity can be finite and the connection is, most times, misleading rather than illuminating.

Intuition tells us that the world is continuous and contiguous. This seems to be a state of things which is devoid of characteristics other than its very existence. And yet, whenever we direct the microscope of scientific discipline at the world, we encounter quantized, segregated, distinct and discrete pictures. This atomization seems to be the natural state of things - why did evolution resort to the false perception of continuum? And how can a machine which is bound to be discrete by virtue of its "naturalness" - the brain - perceive a continuum?

The continuum is an external, mental category which is imposed by us on our observations and on the resulting

data. It serves as an idealized approximation of reality, a model which is asymptotic to the Universe "as it is". It gives rise to the concepts of quality, emergence, function, derivation, influence (force), interaction, fields, (quantum) measurement, processes and a host of other holistic ways of relating to our environment. The other pole, the quantized model of the world conveniently gives rise to the complementary set of concepts: quantity, causality, observation, (classic) measurement, language, events, quants, units and so on.

The private, macroscopic, low velocity instances of our physical descriptions of the universe (theories) tend to be continuous. Newtonian time is equated to a river. Space is a yarn. Einstein was the last classicist (relativity just means that no classical observer has any preference over another in formulating the laws of physics and in performing measurements). His space-time is a four dimensional continuum. What commenced as a matter of mathematical convenience was transformed into a hallowed doctrine: homogeneity, isotropy, symmetry became enshrined as the cornerstones of an almost religious outlook ("God does not play dice"). These were assumed to be "objective", "observer independent" qualities of the Universe. There was supposed to be no preferred direction, no clustering of mass or of energy, no time, charge, or parity asymmetry in elementary particles. The notion of continuum was somehow inter-related. A continuum does not have to be symmetric, homogenous or isotropic - and, yet, somehow, we will be surprised if it turns out not to be.

As physical knowledge deepened, a distressful mood prevailed. The smooth curves of Einstein gave way to the radiating singularities of Hawking's black holes. These

black holes might eventually violate conservation laws by permanently losing all the information stored in them (which pertained to the masses and energies that they assimilated). Singularities imply a tear in the fabric of spacetime and the ubiquity of these creature completely annuls its continuous character. Modern superstrings and supermembranes theories (like Witten's M-Theory) talk about dimensions which curl upon themselves and, thus become non discernible. Particles, singularities and curled up dimensions are close relatives and together seriously erode the tranquil continuity of yore.

But the first serious crack in the classical (intuitive) weltanschauung was opened long ago with the invention of the quantum theoretical device by Max Planck. The energy levels of particles no longer lay along an unhindered continuum. A particle emitted energy in discrete units, called quanta. Others developed a model of the atom, in which particles did not roam the entire inter-atomic space. Rather, they "circled" the nucleus in paths which represented discrete energy levels. No two particles could occupy the same energy level simultaneously and the space between these levels (orbits) was not inhabitable (non existent, actually).

The counter-continuum revolution spread into most fields of science. Phase transitions were introduced to explain the behaviour of materials when parameters such as pressure and temperature are changed. All the materials behave the same in the critical level of phase transition. Yet, phase transitions are discrete, rather surprising, events of emergent order. There is no continuum which can accommodate phase transitions.

The theory of dynamical systems (better known as "Chaos Theory") has also violated long held notions of

mathematical continuity. The sets of solutions of many mathematical theories were proven to be distributed among discrete values (called attractors). Functions behave "catastrophically" in that minute changes in the values of the parameters result in gigantic, divergent changes in where the system "settles down" (finds a solution). In biology Gould and others have modified the theory of evolution to incorporate qualitative, non-gradual "jumps" from one step of the ladder to another. The Darwinian notion of continuous, smooth development with strewn remnants ("missing links") attesting to each incremental shift – has all but expired. Psychology, on the other hand, has always assumed that the difference between "normal" and deranged is a qualitative one and that the two do not lie along a continuous line. A psychological disorder is not a normal state exaggerated.

The continuum way of seeing things is totally inapplicable philosophically and practically. There is a continuum of intelligence quotients (I.Q.s) and, yet, the gifted person is not an enhanced version of the mentally retarded. There is a non-continuous difference between 70 IQ and 170 IQ. They are utterly distinct and not reducible to one another. Another example: "many" and "few" are value judgements or cultural judgements of elements of a language used (and so are "big" and "small"). Though, theoretically, both are points on a continuous line – they are qualitatively disparate. We cannot deduce what is big by studying the small unless we have access to some rules of derivation and decision making. The same applies to the couplets: order / disorder, element / system, evolution / revolution and "not alive" / alive. The latter is at the heart of the applied ethical issue of abortion: when should a foetus begin to be considered a live thing? Life springs suddenly. It is not "more of the same". It is not a matter of

quantity of matter. It is a qualitative issue, almost in the eye of the beholder. All these are problems that call for a non-continuum approach, for the discrete emergence of new phases (order, life, system). The epiphenomenal aspect (properties that characterize the whole that are nowhere to be found when the parts comprising the whole are studied) is accidental to the main issue. The main issue being the fact that the world behaves in a sudden, emergent, surprising, discrete manner. There is no continuum out there, except in some of our descriptions of nature and even this seems to be for the sake of convenience and aesthetics.

But renaming or redefining a problem can hardly be called a solution. We selected the continuum idealization to make our lives easier. But WHY does it achieve this effect? In which ways does it simplify our quest to know the world in order to control it and thus enhance our chances to survive?

There are two types of continuum: spatial and temporal. All the other notions of continuum are reducible to these two. Take a wooden stick. It is continuous (though finite – the two, we said, are not mutually exclusive or mutually exhaustive). Yet, if I were to break it in two – its continuity will have vanished. Why? What in my action made continuity disappear and how can my action influence what seems to be an inherent, extensive property of the stick?

We are forced to accept that continuity is a property of the system that is contingent and dependent on external actions. This is normal, most properties are like this (temperature and pressure, to mention two). But what made the log continuous BEFORE I broke it – and discontinuous following my action and (so it would seem)

because of it? It is the identical response to the outside world. All the points in the (macroscopic) stick would have reacted identically to outside pressure, torsion, twisting, temperature, etc. It is this identical reaction that augments, defines and supports the mental category of "continuum". Where it ends – discontinuity begins. This is the boundary or threshold. Breaking the wooden stick created new boundaries. Now, pressure applied to one part of the stick will not influence the other. The requirement of identical reaction will not be satisfied and the two (newly broken) parts of the stick are no longer part of the continuum.

The existence of a boundary or threshold is intuitively assumed even for infinite systems, like the Universe. This plus the identical reaction principle are what give the impression of continuity. The pre-broken wooden stick satisfied these two requirements: it had a boundary and all its points reacted simultaneously to the outside world.

Yet, these are necessary but insufficient conditions. Discrete entities can have boundaries and react simultaneously (as a group) and still be highly discontinuous. Take a set of the first 10 integers. This set has a boundary and will react in the same way, simultaneously, to a mathematical action (say, to a multiplication by a constant). But here arises the crucial difference:

All the points in the Stick will retain their identity under any transformation and under any physical action. If burnt – they will all turn into ash, to take a radical example.

All the points in the stick will also retain their relationship to one another, the structure of the stick, the mutual arrangement of the points, the channels between them.

The integers in the set will not. Each will produce a result and the results will be disparate and will form a set of discrete numbers which is absolutely distinct from the original set. The second generation set will have no resemblance whatsoever to the first generation set.

An example: heating the wooden stick will not influence our ability to instantly recognize it as a wooden stick and as THE wooden stick. If burnt, we will be able to say with assuredness that a wooden stick has been burnt (at least, that wood has been burnt).

But a set of integers in itself does not contain the information needed to tell us whence it came, what was the set that preceded it. Here, additional knowledge will be required: the exact laws of transformation, the function which was used to derive this set.

The wooden stick conserves and preserves the information relating to itself – the set of integers does not. We can generalize and say that a continuum preserves its information content under transformations while discrete entities or values behave idiosyncratically and, thus, do not. In the case of a continuum, no knowledge of the laws of transformation is needed in order to extract the information content of the continuum. The converse is true in the case of discrete entities or values.

These conditions: the existence of a boundary or threshold, the preservation of local information and the uniform reaction to transformation or action – are what made the continuum such a useful tool in scientific thought. Paradoxically, the very theory that introduced non-continuous thinking to physics (quantum mechanics) is the one that is trying to reintroduce it now. The notion of "fields" is manifestly continuous (the field exists

everywhere, simultaneously). Action at a distance (which implies a unity of the Universe and its continuity) was supposedly exorcised by quantum mechanics – only to reappear in "space-like" interactions. Elaborate – and implausible – theoretical constructs are dreamt up in order to get rid of the "contamination" of continuity. But it is a primordial sin, not so easily atoned for. The measurement problem (see: "The Decoherence of Measurement") is at the very heart of Quantum Mechanics: if the observer actively participates in the determination of the state of the observed system (which, admittedly, is only one possible interpretation) – then we are all (observer and observed) members of one and the same continuum and it is discreteness which is imposed on the true, continuous, nature of the Universe.

Corruption

To do the fashionable thing and to hold the moral high ground is rare. Yet, denouncing corruption and fighting it satisfies both conditions. Yet, corruption is not a monolithic practice. Nor are its outcomes universally deplorable or damaging. One would do best to adopt a utilitarian approach to it. The advent of moral relativism has taught us that "right" and "wrong" are flexible, context dependent and culture-sensitive yardsticks. What amounts to venality in one culture is considered no more than gregariousness or hospitality in another.

Moreover, corruption is often "imported" by multinationals, foreign investors, and expats. It is introduced by them to all levels of governments, often in order to expedite matters or secure a beneficial outcome. To eradicate corruption, one must tackle both giver and taker.

Thus, we are better off asking "cui bono" than "is it the right thing to do". Phenomenologically, "corruption" is a common - and misleading - label for a group of behaviours. One of the following criteria must apply:

a. The withholding of a service, information, or goods that, by law, and by right, should have been provided or divulged.

b. The provision of a service, information, or goods that, by law, and by right, should not have been provided or divulged.

c. That the withholding or the provision of said service, information, or goods are in the power of the withholder or the provider to withhold or to

provide AND That the withholding or the provision of said service, information, or goods constitute an integral and substantial part of the authority or the function of the withholder or the provider.

d. That the service, information, or goods that are provided or divulged are provided or divulged against a benefit or the promise of a benefit from the recipient and as a result of the receipt of this specific benefit or the promise to receive such benefit.

e. That the service, information, or goods that are withheld are withheld because no benefit was provided or promised by the recipient.

Even then, we should distinguish a few types of corrupt and venal behaviours in accordance with their OUTCOMES (utilities):

(1) Income Supplement

Corrupt actions whose sole outcome is the supplementing of the income of the provider without affecting the "real world" in any manner. Though the perception of corruption itself is a negative outcome - it is so only when corruption does not constitute an acceptable and normative part of the playing field. When corruption becomes institutionalized - it also becomes predictable and is easily and seamlessly incorporated into decision making processes of all economic players and moral agents. They develop "by-passes" and "techniques" which allow them to restore an efficient market equilibrium. In a way, all-pervasive corruption is transparent and, thus, a form of taxation.

(2) Acceleration Fees

Corrupt practices whose sole outcome is to ACCELERATE decision making, the provision of goods and services or the divulging of information. None of the outcomes or the utility functions are altered. Only the speed of the economic dynamics is altered. This kind of corruption is actually economically BENEFICIAL. It is a limited transfer of wealth (or tax) which increases efficiency. This is not to say that bureaucracies and venal officialdoms, over-regulation and intrusive political involvement in the workings of the marketplace are good (efficient) things. They are not. But if the choice is between a slow, obstructive and passive-aggressive civil service and a more forthcoming and accommodating one (the result of bribery) - the latter is preferable.

(3) Decision Altering Fees

This is where the line is crossed from the point of view of aggregate utility. When bribes and promises of bribes actually alter outcomes in the real world - a less than optimal allocation of resources and distribution of means of production is obtained. The result is a fall in the general level of production. The many is hurt by the few. The economy is skewed and economic outcomes are distorted. This kind of corruption should be uprooted on utilitarian grounds as well as on moral ones.

(4) Subversive Outcomes

Some corrupt collusions lead to the subversion of the flow of information within a society or an economic unit. Wrong information often leads to disastrous outcomes. Consider a medical doctor or an civil engineer who bribed their way into obtaining a professional diploma. Human

lives are at stake. The wrong information, in this case is the professional validity of the diplomas granted and the scholarship (knowledge) that such certificates stand for. But the outcomes are lost lives. This kind of corruption, of course, is by far the most damaging.

(5) Reallocation Fees

Benefits paid (mainly to politicians and political decision makers) in order to affect the allocation of economic resources and material wealth or the rights thereto. Concessions, licences, permits, assets privatized, tenders awarded are all subject to reallocation fees. Here the damage is materially enormous (and visible) but, because it is widespread, it is "diluted" in individual terms. Still, it is often irreversible (like when a sold asset is purposefully under-valued) and pernicious. a factory sold to avaricious and criminally minded managers is likely to collapse and leave its workers unemployed.

Corruption pervades daily life even in the prim and often hectoring countries of the West. It is a win-win game (as far as Game Theory goes) - hence its attraction. We are all corrupt to varying degrees. It is the kind of corruption whose evil outcomes outweigh its benefits that should be fought. This fine (and blurred) distinction is too often lost on decision makers and law enforcement agencies.

ERADICATING CORRUPTION

An effective program to eradicate corruption must include the following elements:

a. Egregiously corrupt, high-profile, public figures, multinationals, and institutions (domestic and foreign) must be singled out for harsh (legal) treatment and thus demonstrate that no one is

above the law and that crime does not pay.

b. All international aid, credits, and investments must be conditioned upon a clear, performance-based, plan to reduce corruption levels and intensity. Such a plan should be monitored and revised as needed. Corruption retards development and produces instability by undermining the credentials of democracy, state institutions, and the political class. Reduced corruption is, therefore, a major target of economic and institutional developmental.

c. Corruption cannot be reduced only by punitive measures. A system of incentives to avoid corruption must be established. Such incentives should include a higher pay, the fostering of civic pride, educational campaigns, "good behaviour" bonuses, alternative income and pension plans, and so on.

d. Opportunities to be corrupt should be minimized by liberalizing and deregulating the economy. Red tape should be minimized, licensing abolished, international trade freed, capital controls eliminated, competition introduced, monopolies broken, transparent public tendering be made mandatory, freedom of information enshrined, the media should be directly supported by the international community, and so on. Deregulation should be a developmental target integral to every program of international aid, investment, or credit provision.

e. Corruption is a symptom of systemic institutional failure. Corruption guarantees efficiency and

favorable outcomes. The strengthening of institutions is of critical importance. The police, the customs, the courts, the government, its agencies, the tax authorities, the state owned media - all must be subjected to a massive overhaul. Such a process may require foreign management and supervision for a limited period of time. It most probably would entail the replacement of most of the current - irredeemably corrupt - personnel. It would need to be open to public scrutiny.

f. Corruption is a symptom of an all-pervasive sense of helplessness. The citizen (or investor, or firm) feels dwarfed by the overwhelming and capricious powers of the state. It is through corruption and venality that the balance is restored. To minimize this imbalance, potential participants in corrupt dealings must be made to feel that they are real and effective stakeholders in their societies. A process of public debate coupled with transparency and the establishment of just distributive mechanisms will go a long way towards rendering corruption obsolete.

Note - The Psychology of Corruption

Most politicians bend the laws of the land and steal money or solicit bribes because they need the funds to support networks of patronage. Others do it in order to reward their nearest and dearest or to maintain a lavish lifestyle when their political lives are over.

But these mundane reasons fail to explain why some officeholders go on a rampage and binge on endless quantities of lucre. All rationales crumble in the face of a

Mobutu Sese Seko or a Saddam Hussein or a Ferdinand Marcos who absconded with billions of US dollars from the coffers of Zaire, Iraq, and the Philippines, respectively.

These inconceivable dollops of hard cash and valuables often remain stashed and untouched, moldering in bank accounts and safes in Western banks. They serve no purpose, either political or economic. But they do fulfill a psychological need. These hoards are not the megalomaniacal equivalents of savings accounts. Rather they are of the nature of compulsive collections.

Erstwhile president of Sierra Leone, Momoh, amassed hundreds of video players and other consumer goods in vast rooms in his mansion. As electricity supply was intermittent at best, his was a curious choice. He used to sit among these relics of his cupidity, fondling and counting them insatiably.

While Momoh relished things with shiny buttons, people like Sese Seko, Hussein, and Marcos drooled over money. The ever-heightening mountains of greenbacks in their vaults soothed them, filled them with confidence, regulated their sense of self-worth, and served as a love substitute. The balances in their bulging bank accounts were of no practical import or intent. They merely catered to their psychopathology.

These politicos were not only crooks but also kleptomaniacs. They could no more stop thieving than Hitler could stop murdering. Venality was an integral part of their psychological makeup.

Kleptomania is about acting out. It is a compensatory act. Politics is a drab, uninspiring, unintelligent, and, often humiliating business. It is also risky and rather arbitrary. It

involves enormous stress and unceasing conflict. Politicians with mental health disorders (for instance, narcissists or psychopaths) react by decompensation. They rob the state and coerce businessmen to grease their palms because it makes them feel better, it helps them to repress their mounting fears and frustrations, and to restore their psychodynamic equilibrium. These politicians and bureaucrats "let off steam" by looting.

Kleptomaniacs fail to resist or control the impulse to steal, even if they have no use for the booty. According to the Diagnostic and Statistical Manual IV-TR (2000), the bible of psychiatry, kleptomaniacs feel "pleasure, gratification, or relief when committing the theft." The good book proceeds to say that " ... (T)he individual may hoard the stolen objects ...".

As most kleptomaniac politicians are also psychopaths, they rarely feel remorse or fear the consequences of their misdeeds. But this only makes them more culpable and dangerous.

Creativity

The creative person is often described as suffering from dysfunctional communication skills. Unable to communicate his thoughts (cognition) and his emotions (affect) normally, he resorts to the circumspect, highly convoluted and idiosyncratic form of communication known as Art (or Science, depending on his inclination and predilections).

But this cold, functional, phenomenological analysis fails to capture the spirit of the creative act. Nor does it amply account for our responses to acts of creation (ranging from enthusiasm to awe and from criticism to censorship).

True, this range of responses characterizes everyday communications as well – but then it is imbued with much less energy, commitment, passion, and conviction. This is a classical case of quantity turned into quality.

The creative person provokes and evokes the Child in us by himself behaving as one. This rude violation of our social conventions and norms (the artist is, chronologically, an adult) shocks us into an utter loss of psychological defenses. This results in enlightenment: a sudden flood of insights, the release of hitherto suppressed emotions, memories and embryonic forms of cognition and affect. The artist probes our subconscious, both private and collective.

Crime

The state has a monopoly on behaviour usually deemed criminal. It murders, kidnaps, and locks up people. Sovereignty has come to be identified with the unbridled - and exclusive - exercise of violence. The emergence of modern international law has narrowed the field of permissible conduct. A sovereign can no longer commit genocide or ethnic cleansing with impunity, for instance.

Many acts - such as the waging of aggressive war, the mistreatment of minorities, the suppression of the freedom of association - hitherto sovereign privilege, have thankfully been criminalized. Many politicians, hitherto immune to international prosecution, are no longer so. Consider Yugoslavia's Milosevic and Chile's Pinochet.

But, the irony is that a similar trend of criminalization - within national legal systems - allows governments to oppress their citizenry to an extent previously unknown. Hitherto civil torts, permissible acts, and common

behaviour patterns are routinely criminalized by legislators and regulators. Precious few are decriminalized.

Consider, for instance, the criminalization in the Economic Espionage Act (1996) of the misappropriation of trade secrets and the criminalization of the violation of copyrights in the Digital Millennium Copyright Act (2000) – both in the USA. These used to be civil torts. They still are in many countries. Drug use, common behaviour in England only 50 years ago – is now criminal. The list goes on.

Criminal laws pertaining to property have malignantly proliferated and pervaded every economic and private interaction. The result is a bewildering multitude of laws, regulations statutes, and acts.

The average Babylonian could have memorizes and assimilated the Hammurabic code 37 centuries ago - it was short, simple, and intuitively just.

English criminal law - partly applicable in many of its former colonies, such as India, Pakistan, Canada, and Australia - is a mishmash of overlapping and contradictory statutes - some of these hundreds of years old - and court decisions, collectively known as "case law".

Despite the publishing of a Model Penal Code in 1962 by the American Law Institute, the criminal provisions of various states within the USA often conflict. The typical American can't hope to get acquainted with even a negligible fraction of his country's fiendishly complex and hopelessly brobdignagian criminal code. Such inevitable ignorance breeds criminal behaviour - sometimes

inadvertently - and transforms many upright citizens into delinquents.

In the land of the free - the USA - close to 2 million adults are behind bars and another 4.5 million are on probation, most of them on drug charges. The costs of criminalization - both financial and social - are mind boggling. According to "The Economist", America's prison system cost it $54 billion a year - disregarding the price tag of law enforcement, the judiciary, lost product, and rehabilitation.

What constitutes a crime? A clear and consistent definition has yet to transpire.

There are five types of criminal behaviour: crimes against oneself, or "victimless crimes" (such as suicide, abortion, and the consumption of drugs), crimes against others (such as murder or mugging), crimes among consenting adults (such as incest, and in certain countries, homosexuality and euthanasia), crimes against collectives (such as treason, genocide, or ethnic cleansing), and crimes against the international community and world order (such as executing prisoners of war). The last two categories often overlap.

The Encyclopaedia Britannica provides this definition of a crime: ***"The intentional commission of an act usually deemed socially harmful or dangerous and specifically defined, prohibited, and punishable under the criminal law."***

But who decides what is socially harmful? What about acts committed unintentionally (known as "strict liability offences" in the parlance)? How can we establish intention - "mens rea", or the "guilty mind" - beyond a

reasonable doubt?

A much tighter definition would be: ***"The commission of an act punishable under the criminal law."*** A crime is what the law - state law, kinship law, religious law, or any other widely accepted law - says is a crime. Legal systems and texts often conflict.

Murderous blood feuds are legitimate according to the 15th century "Qanoon", still applicable in large parts of Albania. Killing one's infant daughters and old relatives is socially condoned - though illegal - in India, China, Alaska, and parts of Africa. Genocide may have been legally sanctioned in Germany and Rwanda - but is strictly forbidden under international law.

Laws being the outcomes of compromises and power plays, there is only a tenuous connection between justice and morality. Some "crimes" are categorical imperatives. Helping the Jews in Nazi Germany was a criminal act - yet a highly moral one.

The ethical nature of some crimes depends on circumstances, timing, and cultural context. Murder is a vile deed - but assassinating Saddam Hussein may be morally commendable. Killing an embryo is a crime in some countries - but not so killing a fetus. A "status offence" is not a criminal act if committed by an adult. Mutilating the body of a live baby is heinous - but this is the essence of Jewish circumcision. In some societies, criminal guilt is collective. All Americans are held blameworthy by the Arab street for the choices and actions of their leaders. All Jews are accomplices in the "crimes" of the "Zionists".

In all societies, crime is a growth industry. Millions of

professionals - judges, police officers, criminologists, psychologists, journalists, publishers, prosecutors, lawyers, social workers, probation officers, wardens, sociologists, non-governmental-organizations, weapons manufacturers, laboratory technicians, graphologists, and private detectives - derive their livelihood, parasitically, from crime. They often perpetuate models of punishment and retribution that lead to recidivism rather than to to the reintegration of criminals in society and their rehabilitation.

Organized in vocal interest groups and lobbies, they harp on the insecurities and phobias of the alienated urbanites. They consume ever growing budgets and rejoice with every new behaviour criminalized by exasperated lawmakers. In the majority of countries, the justice system is a dismal failure and law enforcement agencies are part of the problem, not its solution.

The sad truth is that many types of crime are considered by people to be normative and common behaviours and, thus, go unreported. Victim surveys and self-report studies conducted by criminologists reveal that most crimes go unreported. The protracted fad of criminalization has rendered criminal many perfectly acceptable and recurring behaviours and acts. Homosexuality, abortion, gambling, prostitution, pornography, and suicide have all been criminal offences at one time or another.

But the quintessential example of over-criminalization is drug abuse.

There is scant medical evidence that soft drugs such as cannabis or MDMA ("Ecstasy") - and even cocaine - have an irreversible effect on brain chemistry or functioning. Last month an almighty row erupted in Britain when Jon

Cole, an addiction researcher at Liverpool University, claimed, to quote "The Economist" quoting the "Psychologist", that:

"Experimental evidence suggesting a link between Ecstasy use and problems such as nerve damage and brain impairment is flawed ... using this ill-substantiated cause-and-effect to tell the 'chemical generation' that they are brain damaged when they are not creates public health problems of its own."

Moreover, it is commonly accepted that alcohol abuse and nicotine abuse can be at least as harmful as the abuse of marijuana, for instance. Yet, though somewhat curbed, alcohol consumption and cigarette smoking are legal. In contrast, users of cocaine - only a century ago recommended by doctors as tranquilizer - face life in jail in many countries, death in others. Almost everywhere pot smokers are confronted with prison terms.

The "war on drugs" - one of the most expensive and protracted in history - has failed abysmally. Drugs are more abundant and cheaper than ever. The social costs have been staggering: the emergence of violent crime where none existed before, the destabilization of drug-producing countries, the collusion of drug traffickers with terrorists, and the death of millions - law enforcement agents, criminals, and users.

Few doubt that legalizing most drugs would have a beneficial effect. Crime empires would crumble overnight, users would be assured of the quality of the products they consume, and the addicted few would not be incarcerated or stigmatized - but rather treated and rehabilitated.

That soft, largely harmless, drugs continue to be illicit is

the outcome of compounded political and economic pressures by lobby and interest groups of manufacturers of legal drugs, law enforcement agencies, the judicial system, and the aforementioned long list of those who benefit from the status quo.

Only a popular movement can lead to the decriminalization of the more innocuous drugs. But such a crusade should be part of a larger campaign to reverse the overall tide of criminalization. Many "crimes" should revert to their erstwhile status as civil torts. Others should be wiped off the statute books altogether. Hundreds of thousands should be pardoned and allowed to reintegrate in society, unencumbered by a past of transgressions against an inane and inflationary penal code.

This, admittedly, will reduce the leverage the state has today against its citizens and its ability to intrude on their lives, preferences, privacy, and leisure. Bureaucrats and politicians may find this abhorrent. Freedom loving people should rejoice.

APPENDIX - Should Drugs be Legalized?

The decriminalization of drugs is a tangled issue involving many separate moral/ethical and practical strands which can, probably, be summarized thus:

(a) Whose body is it anyway? Where do I start and the government begins? What gives the state the right to intervene in decisions pertaining only to my self and contravene them?

PRACTICAL:

The government exercises similar "rights" in other cases

(abortion, military conscription, sex)

(b) Is the government the optimal moral agent, the best or the right arbiter, as far as drug abuse is concerned?

PRACTICAL:

For instance, governments collaborate with the illicit drug trade when it fits their realpolitik purposes.

(c) Is substance abuse a ***personal*** or a ***social*** choice? Can one ***limit*** the implications, repercussions and outcomes of one's choices in general and of the choice to abuse drugs, in particular? If the drug abuser in effect makes decisions for others, too - does it justify the intervention of the state? Is the state the agent of society, is it the ***only*** agent of society and is it the ***right*** agent of society in the case of drug abuse?

(d) What is the difference (in rigorous philosophical principle) between legal and illegal substances? Is it something in the ***nature*** of the substances? In the ***usage*** and what follows? In the structure of ***society***? Is it a moral fashion?

PRACTICAL:

Does scientific research support or refute common myths and ethos regarding drugs and their abuse?

Is scientific research ***influenced*** by the current anti-drugs crusade and hype? Are certain facts suppressed and certain subjects left unexplored?

(e) Should drugs be decriminalized for certain purposes

(e.g., marijuana and glaucoma)? If so, where should the line be drawn and by whom?

PRACTICAL:

Recreational drugs sometimes alleviate depression. Should this use be permitted?

Cultures, Classificatory System of

Culture is a hot topic. Scholars (Fukoyama, Huntington, to mention but two) disagree about whether this is the end of history or the beginning of a particularly nasty chapter of it.

What makes cultures tick and why some of them tick discernibly better than others – is the main bone of contention.

We can view cultures through the prism of their attitude towards their constituents: the individuals they are comprised of. More so, we can classify them in accordance with their approach towards "humanness", the experience of being human.

Some cultures are evidently anthropocentric – others are anthropo-transcendental. These two lingual coins need elaboration to be fully comprehended.

A culture which cherishes the human potential and strives to create the conditions needed for its fullest materialization and manifestation is an anthropocentric culture. Such striving is the top priority, the crowning achievement, the measuring rod of such a culture, its attainment - its criterion of success or failure.

On the other pole of the dichotomy we find cultures which look beyond humanity. This "transcendental" look has multiple purposes.

Some cultures want to transcend human limitations, others to derive meaning, yet others to maintain social equilibrium. But what is common to all of them – regardless of purpose – is the subjugation of human

endeavour, of human experience, human potential, all things human to this transcendence.

Granted: cultures resemble living organisms. They evolve, they develop, they procreate. None of them was "created" the way it is today. Cultures go through Differential Phases – wherein they re-define and re-invent themselves using varied parameters. Once these phases are over – the results are enshrined during the Inertial Phases. The Differential Phases are period of social dislocation and upheaval, of critical, even revolutionary thinking, of new technologies, new methods of achieving set social goals, identity crises, imitation and differentiation.

They are followed by phases of a diametrically opposed character:

Preservation, even stagnation, ritualism, repetition, rigidity, emphasis on structures rather than contents.

Anthropocentric cultures have differential phases which are longer than the inertial ones.

Anthropotranscendental ones tend to display a reverse pattern.

This still does not solve two basic enigmas:

What causes the transition between differential and inertial phases?

Why is it that anthropocentricity coincides with differentiation and progress / evolution – while other types of cultures with an inertial framework?

A culture can be described by using a few axes:

Distinguishing versus Consuming Cultures

Some cultures give weight and presence (though not necessarily equal) to each of their constituent elements (the individual and social structures). Each such element is idiosyncratic and unique. Such cultures would accentuate attention to details, private enterprise, initiative, innovation, entrepreneurship, inventiveness, youth, status symbols, consumption, money, creativity, art, science and technology.

These are the things that distinguish one individual from another.

Other cultures engulf their constituents, assimilate them to the point of consumption. They are deemed, a priori, to be redundant, their worth a function of their actual contribution to the whole.

Such cultures emphasize generalizations, stereotypes, conformity, consensus, belonging, social structures, procedures, forms, undertakings involving the labour or other input of human masses.

Future versus Past Oriented Cultures

Some cultures look to the past – real or imaginary – for inspiration, motivation, sustenance, hope, guidance and direction. These cultures tend to direct their efforts and resources and invest them in what IS. They are, therefore, bound to be materialistic, figurative, substantive, earthly.

They are likely to prefer old age to youth, old habits to new, old buildings to modern architecture, etc. This preference of the Elders (a term of veneration) over the Youngsters (a denigrating term) typifies them strongly. These cultures are likely to be risk averse.

Other cultures look to the future – always projected – for

the same reasons.

These cultures invest their efforts and resources in an ephemeral future (upon the nature or image of which there is no agreement or certainty).

These cultures are, inevitably, more abstract (living in an eternal Gedankenexperiment), more imaginative, more creative (having to design multiple scenarios just to survive). They are also more likely to have a youth cult: to prefer the young, the new, the revolutionary, the fresh – to the old, the habitual, the predictable. They are be risk-centered and risk-assuming cultures.

Static versus Dynamic (Emergent) Cultures
Consensus versus Conflictual Cultures

Some cultures are more cohesive, coherent, rigid and well-bounded and constrained. As a result, they will maintain an unchanging nature and be static. They discourage anything which could unbalance them or perturb their equilibrium and homeostasis. These cultures encourage consensus-building, teamwork, togetherness and we-ness, mass experiences, social sanctions and social regulation, structured socialization, peer loyalty, belonging, homogeneity, identity formation through allegiance to a group. These cultures employ numerous self-preservation mechanisms and strict hierarchy, obedience, discipline, discrimination (by sex, by race, above all, by age and familial affiliation).

Other cultures seem more "ruffled", "arbitrary", or disturbed. They are pluralistic, heterogeneous and torn. These are the dynamic (or, fashionably, the emergent) cultures. They encourage conflict as the main arbiter in the social and economic spheres ("the invisible hand of

the market" or the American "checks and balances"), contractual and transactional relationships, partisanship, utilitarianism, heterogeneity, self fulfilment, fluidity of the social structures, democracy.

Exogenic-Extrinsic Meaning Cultures Versus Endogenic-Intrinsic Meaning Cultures

Some cultures derive their sense of meaning, of direction and of the resulting wish-fulfillment by referring to frameworks which are outside them or bigger than them. They derive meaning only through incorporation or reference.

The encompassing framework could be God, History, the Nation, a Calling or a Mission, a larger Social Structure, a Doctrine, an Ideology, or a Value or Belief System, an Enemy, a Friend, the Future – anything qualifies which is bigger and outside the meaning-seeking culture.

Other cultures derive their sense of meaning, of direction and of the resulting wish fulfilment by referring to themselves – and to themselves only. It is not that these cultures ignore the past – they just do not re-live it. It is not that they do not possess a Values or a Belief System or even an ideology – it is that they are open to the possibility of altering it.

While in the first type of cultures, Man is meaningless were it not for the outside systems which endow him with meaning – in the latter the outside systems are meaningless were it not for Man who endows them with meaning.

Virtually Revolutionary Cultures Versus Structurally-Paradigmatically Revolutionary Cultures

All cultures – no matter how inert and conservative – evolve through the differential phases.

These phases are transitory and, therefore, revolutionary in nature.

Still, there are two types of revolution:

The Virtual Revolution is a change (sometimes, radical) of the structure – while the content is mostly preserved. It is very much like changing the hardware without changing any of the software in a computer.

The other kind of revolution is more profound. It usually involves the transformation or metamorphosis of both structure and content. In other cases, the structures remain intact – but they are hollowed out, their previous content replaced by new one. This is a change of paradigm (superbly described by the late Thomas Kuhn in his masterpiece: "The Structure of Scientific Revolutions").

The Post Traumatic Stress Syndrome Differentiating Factor

As a result of all the above, cultures react with shock either to change or to its absence.

A taxonomy of cultures can be established along these lines:

Those cultures which regard change as a trauma – and those who traumatically react to the absence of change, to paralysis and stagnation.

This is true in every sphere of life: the economic, the social, in the arts, the sciences.

Neurotic Adaptive versus Normally Adaptive Cultures

This is the dividing line:

Some cultures feed off fear and trauma. To adapt, they developed neuroses. Other cultures feed off hope and love – they have adapted normally.

Neurotic Cultures	***Normal Cultures***
Consuming	***Distinguishing***
Past Oriented	***Future Oriented***
Static	***Dynamic (Emergent)***
Consensual	***Conflictive***
Exogenic-Extrinsic	***Endogenic-Intrinsic***
Virtual Revolutionary	***Structurally-Paradigmatically Revolut***
PTSS reaction to change	***PTSS reaction to stagnation***

So, are these types of cultures doomed to clash, as the current fad goes – or can they cohabitate?

It seems that the Neurotic cultures are less adapted to win the battle to survive. The fittest are those cultures flexible enough to respond to an ever changing world – and at an ever increasing pace, at that. The neurotic cultures are slow to respond, rigid and convulsive. Being past-orientated means that they emulate and imitate the normal cultures – but only when they have become part of the past. Alternatively, they assimilate and adopt some of the attributes of the past of normal cultures. This is why a traveller who visits a neurotic culture (and is coming from a normal one) often has the feeling that he has been thrust to the past, that he is experiencing a time travel.

A War of Cultures is, therefore, not very plausible. The neurotic cultures need the normal cultures. The latter are the generators of the former's future. A normal culture's past is a neurotic culture's future.

Deep inside, the neurotic cultures know that something is wrong with them, that they are ill-adapted. That is why members of these cultural spheres entertain overt emotions of envy, hostility even hatred – coupled with explicit sensations of inferiority, inadequacy, disappointment, disillusionment and despair. The eruptive nature (the neurotic rage) of these cultures is exactly the result of these inner turmoils. On the other hand, soliloquy is not action, often it is a substitute to it. Very few neurotic cultures are suicidal – and then for very brief periods of time.

To forgo the benefits of learning from the experience of normal cultures how to survive would be suicidal, indeed. This is why I think that the transition to a different cultural model, replete with different morals, will be completed with success. But it will not eliminate all pervious models - I foresee cohabitation.

D

Danger

When we, mobile organisms, are confronted with danger, we move. Coping with danger is one of the defining characteristics and determinants of life: how we cope with danger defines and determines us, that is: forms part of our identity.

To move is to change our identity. This is composed of spatial-temporal parameters (co-ordinates) and of intrinsic parameters. No being is sufficiently defined without designating its locus in space-time. Where we are and when we are is as important as what we are made of, or what are our internal processes. Changing the values of our space time parameters is really tantamount to changing ourselves, to altering our definition sufficiently to confound the source of danger.

Mobile organisms, therefore, resort to changing their space-time determinants as a means towards the end of changing their identity. This is not to say that their intrinsic parameters remain unchanged. Hormonal discharges, neural conductivity, biochemical reactions – all acquire new values. But these are secondary reactions. The dominant pattern of reaction is flight (spatial-temporal), rather than fright (intrinsic).

The repertoire of static organisms (plants, for instance) is rather more limited. Their ability to alter the values of their space-time co-ordinates is very narrow. They can get away from aridity by extending their roots. They can spread spores all over. But their main body is constrained and cannot change location. This is why it is reasonable to expect that immobile organisms will resort to changing

the values of their intrinsic parameters when faced with danger. We could reasonably expect them to change their chemical reactions, the compounds that they contain, other electrical and chemical parameters, hormones, enzymes, catalysts – anything intrinsic and which does not depend on space and time.

Death

What exactly is death?

A classical point of departure in defining death, seems to be life itself. Death is perceived either as a cessation of life - or as a "transit area", on the way to a continuation of life by other means. While the former approach presents a disjunction, the latter is a continuum, death being nothing but a corridor into another plane of existence (the hereafter).

But who does the dying when death occurs?

In other words, capturing the identity of the dying entity (that which "commits" death) is essential in defining death. But how can we establish the dying entity's unambiguous and unequivocal identity? Can this identity be determined by using ***quantitative*** parameters? Is it dependent, for instance, upon the number of discrete units which comprise the functioning whole? If so, at which level are useful distinctions and observations replaced by useless scholastic mind-warps?

Example: can human identity be defined by the number and organization of one's limbs, cells, or atoms? Cells in the human body are replaced (with the exception of the nervous system) every 5 years. Would this phenomenon imply that we gain a new identity each time this cycle is completed and most our cells are replaced?

Adopting this course of thinking leads to absurd results:

When humans die, the replacement rate of their cells is null. Does this zero replacement rate mean that their identity is better and longer preserved once dead? No one would say this. Death is tantamount to a loss of identity - not to its preservation. So, it would seem that, to ascertain one's identity, we should prefer a ***qualitative*** yardstick to a quantitative one.

The brain is a natural point of departure.

We can start by asking if one's identity will change if we were to substitute one's brain with another person's brain? "He is not the same" - we say of someone with a brain injury. If partial damage to the brain causes such a sea change in the determinants of individuality - it seems safe to assume that replacing one's entire brain will result in a total change of one's identity, akin to the emergence of another, distinct, self.

If the brain is the locus of identity, we should be able to assert that when (the cells of) all the other organs of the body are replaced (with the exception of the brain) - one's identity is still preserved.

The human hardware (body) and software (the wiring of the brain) have often been compared to a computer (see: "Metaphors of Mind"). But this analogy is misleading.

If we were to change all the software running on a computer - it would still remain the same (though more or less capable) computer. This is the equivalent of growing up in humans. However, if we were to change the computer's processor - it would no longer be the same computer.

This, partly, is the result of the separation of hardware (the microprocessor) from software (the programmes that it processes). There is no such separation in the human brain. The 1300 grams of grey matter in our heads are both hardware and software.

Still, the computer analogy seems to indicate that our identity resides not in our learning, knowledge, or memories. It is an epiphenomenon. It emerges when a certain level of hardware complexity is attained.

Even so, things are not that simple. If we were to eliminate someone's entire store of learning and memories (without affecting his physical brain) - would he still be the same person, would he still retain the same identity? Probably not.

In reality, erasing one's learning and memories without affecting his brain - is impossible. In humans, learning and memories ***are*** the brain. They affect the hardware that processes them in an irreversible manner. Still, in certain abnormal conditions, such radical erasure does occur (see "Shattered Identity").

This, naturally, cannot be said of a computer. There, the distinction between hardware and software is clear. Change a computer's hardware and you change its identity. Computers are software - invariant.

We are, therefore, able to confidently conclude that the brain is the sole determinant of identity, its seat and signifier. This is because our brain is ***both*** our processing hardware and our processed software. It is also a repository of processed data. A human brain detached from a body is still assumed to possess identity. And a monkey implanted with a human brain will host the

identity of the former owner of the brain.

Many of the debates in the first decade of the new discipline of Artificial Intelligence (AI) revolved around these thought experiments. The Turing Test pits invisible intelligences against one another. The answers which they provide (by teleprinter, hidden behind partitions) determine their presumed identity (human or not). Identity is determined merely on the basis of the outputs (the responses). No direct observation of the hardware is deemed necessary by the test.

The brain's status as the privileged identity system is such that even when it remain incommunicado, we assume that it harbors a person. If for some medical, logistical, or technological problem, one's brain is unable to provide output, answers, and interactions - we are still likely to assume that it has the ***potential*** to do so. Thus, in the case of an inactive brain, the presumed identity is a derivative of its potential to interact, rather than of any actual interaction.

Paleo-anthropologists attempt to determine the identity of our forefathers by studying their skulls and, by inference, their brains and their mental potentials. True, they investigate other types of bones. Ultimately, they hope to be able to draw an accurate visual description of our ancestors. But perusing other bones leads merely to an image of their former owners - while the scrutiny of skulls presumably reveals our ancestors' very identities.

When we die, what dies, therefore, is the brain and only the brain.

Death is discernible as the cessation of the exercise of force over physical systems. It is the sudden absence of

physical effects previously associated with the dead object, a singularity, a discontinuity. But it should not be confused with inertia.

Inertia is a ***balance of forces*** - while death is the ***absence of forces***. Death is, therefore, also not an entropic climax. Entropy is an isotropic, homogeneous distribution of energy. Death is the absence of any and all energies. While, outwardly, the two might appear to be identical - they are actually the two poles of a dichotomy.

So, death, as opposed to inertia or entropy, is not something that modern physics is fully equipped to deal with. Physics, by definition, deals with forces and measurable effects. It has nothing to say about force-less, energy-devoid physical states (oxymora).

Still, if death is merely the terminal cessation of all impact on all physical systems (the absence of physical effects), how can we account for memories of the deceased?

Memory is a physical effect (electrochemical activity of the brain) upon a physical system (the Brain). It can be preserved and shipped across time and space in capsules called books or or artwork. These are containers of triggers of physical effects (in recipient brains). They seem to defy death. Though the physical system which produced the memory capsule surely ceases to exist - it continues to physically impact other physical systems long after its demise, long after it was supposed to stop doing so.

Memory makes death a transcendental affair. As long as we (or what we create) are remembered - we continue to have a physical effect on physical systems (i.e., on other

people's brains). And as long as this is happening - we are not technically (or, at least, fully) dead. Our death, our destruction are fully accomplished only after our memory is wiped out completely, not even having the potential of being resurrected in future. Only then do we cease to exist (i.e., to have an effect on other physical systems).

Philosophically, there is no difference between being influenced by a real-life conversation with Kant - and being effected by his words preserved in a time-space capsule, such as a book. As far as the reader is concerned, Kant is very much alive, more so than contemporaneous people whom the reader never met.

It is conceivable that, in the future, we will be able to preserve a three-dimensional facsimile (a hologram) of a person, replete with his smells, temperature, and tactile effects. Why would the flesh and blood version be judged superior to such a likeness?

There is no self-evident hierarchy of representations based on their media. Organic 3-d representations ("bodies") are not inherently superior to inorganic 3-d representations. In other words, our futuristic hologram should not be deemed inferior to the classic, organic version as long as they both possess the same information content and are able to assimilate information, regenerate and create.

The only defensible hierarchy is of potentials and, thus, pertains to the future. Non-organic representations ("representations") of intelligent and conscious entities - of "organic originals" - are finite. The organic originals are infinite in their potential to create and to procreate, to change themselves and their environment, to act and be acted upon within ever more complex feedback loops.

The non-organic versions, the representations, are self contained and final. The organic originals and their representations may contain identical information. But the amount of information will increase in the organic version and decrease in the non-organic one (due to the second Law of Thermodynamics). This inevitable divergence is what renders the organic original privileged.

This property - of an increasing amount of information (=order) - characterizes not only organic originals but also anything that emanates from them. It characterizes works of art and science, or human off-spring, for instance. All these tend to increase information (indeed, they are, in themselves, information packets).

So, could we say that the propagation and the continuation of physical effects (through memory) is life after death? Life and memory share an important trait. They both have a negentropic (=order and information increasing) impact on their surroundings. Does that make them synonymous? Is death only a transitory phase from one form of Life (organic) to another (informational, spiritual)?

However tempting this equation is - in most likelihood, it is false.

The reason is that there are two sources of increase in information and what sets them apart is not trivial. As long as the organic original lives, all creation depends upon it. After it dies, the works that it has created and the memories that are associated with it, continue to affect physical systems.

However, their ability to foster new creative work, to generate new memories, in short: their capacity to increase order by spawning information is totally

dependent upon other, living, organic originals. In the absence of other organic originals, they stagnate and go through an entropic decrease of information (i.e., increase of disorder).

This is the crux of the distinction between Life and Death:

LIFE is the potential, possessed by organic originals, to create (=to fight entropy by increasing information and order), using their own software. Such software can be coded in hardware - e.g., one's DNA - but then the creative act is limited to the replication of the organic original or parts thereof.

Upon the original's DEATH, the potential to create is passed through one's memory. Creative acts, works of art and science, or other forms of creativity are propagated only within the software (=the brains) of other, living, organic originals.

Both forms of creation (i.e., using one's software and using others' software) can co-exist during the original's life. Death, however, incapacitates the first type of creation (i.e., creation by an organic original, independent of others, and using its software). Upon death, the surrogate form of creation (i.e., creation, by other organic originals who use their software to process the works and memories of the dead) becomes the only one.

Memories created by one organic original resonate through the brains of others. This generates information and provokes the creative potential in recipient brains. Some of them do react by creating and, thus, play host to the parasitic, invading memory, infecting other members of the memory-space (=the meme space).

Death is, therefore, the assimilation of the products of an

organic original in a Collective. It is, indeed, the continuation of Life but in a collective, rather than individually.

Alternatively, Death could be defined as a terminal change in the state of the hardware. Segments of the software colonize brains in the Collective. The software now acquires a different hardware - others' brains. This, of course, is reminiscent of certain viral mechanisms. The comparison may be superficial and misleading - or may lead to the imagery of the individual as a cell in the large organism of humanity. Memory has a role in this new form of social-political evolution which superseded Biological Evolution, as an instrument of adaptation.

Should we adopt this view, certain human reactions - e.g., opposition to change and religious and ideological wars - can perhaps be regarded as immunological reactions of the Collective to viral infection by the software (memories, works of art or science, ideas, in short: memes) of an individual.

Decoherence – See: ***Measurement***

Definition

The sentence "all cats are black" is evidently untrue even if only one cat in the whole universe were to be white. Thus, the property "being black" cannot form a part of the definition of a cat. The lesson to be learnt is that definitions must be universal. They must apply to all the members of a defined set (the set of "all cats" in our example).

Let us try to define a chair. In doing so we are trying to capture the essence of being a chair, its "chairness". It is chairness that is defined – not this or that specific chair.

We want to be able to identify chairness whenever and wherever we come across it. But chairness cannot be captured without somehow tackling and including the uses of a chair – what is it made for, what does it do or help to do. In other words, a definition must include an operative part, a function. In many cases the function of the Definiendum (the term defined) constitutes its meaning. The function of a vinyl record is its meaning. It has no meaning outside its function. The Definiens (the expression supplying the definition) of a vinyl record both encompasses and consists of its function or use.

Yet, can a vinyl record be defined in vacuum, without incorporating the record player in the definiens? After all, a vinyl record is an object containing audio information decoded by a record player. Without the "record player" bit, the definiens becomes ambiguous. It can fit an audio cassette, or a compact disc. So, the context is essential. A good definition includes a context, which serves to alleviate ambiguity.

Ostensibly, the more details provided in the definition – the less ambiguous it becomes. But this is not true. Actually, the more details provided the more prone is the definition to be ambiguous. A definition must strive to be both minimal and aesthetic. In this sense it is much like a scientific theory. It talks about the match or the correlation between language and reality. Reality is parsimonious and to reflect it, definitions must be as parsimonious as it is.

Let us summarize the characteristics of a good definition and then apply them and try to define a few very mundane terms.

First, a definition must reveal the meaning of the term or concept defined. By "meaning" I mean the independent

and invariant meaning – not the culturally dependent, narrative derived, type. The invariant meaning has to do with a function, or a use. A term or a concept can have several uses or functions, even conflicting ones. But all of the uses and functions must be universally recognized. Think about Marijuana or tobacco. They have medical uses and recreational uses. These uses are expressly contradictory. But both are universally acknowledged, so both define the meaning of marijuana or tobacco and form a part of their definitions.

Let us try to construct the first, indisputable, functional, part of the definitions of a few terms.

"Chair" – Intended for sitting.

"Game" – Deals with the accomplishment of goals.

"Window" – Allows to look through it, or for the penetration of light or air (when open or not covered).

"Table" – Intended for laying things on its surface.

It is only when we know the function or use of the definiendum that we can begin to look for it. The function/use FILTERS the world and narrows the set of candidates to the definiendum. A definition is a series of superimposed language filters. Only the definendum can penetrate this lineup of filters. It is like a high-specificity membrane: only one term can slip in.

The next parameter to look for is the characteristics of the definiendum. In the case of physical objects, we will be looking for physical characteristics, of course. Otherwise, we will be looking for more ephemeral traits.

"Chair" – Solid structure Intended for sitting.

"Game" – Mental or physical activity of one or more people (the players), which deals with the accomplishment of goals.

"Window" – Planar discontinuity in a solid surface, which allows to look through it, or for the penetration of light or air (when open or not covered).

"Table" – Structure with at least one leg and one flat surface, intended for laying things on its surface.

A contrast begins to emerge between a rigorous "dictionary-language-lexical definition" and a "stipulative definition" (explaining how the term is to be used). The first might not be immediately recognizable, the second may be inaccurate, non-universal or otherwise lacking.

Every definition contrasts the general with the particular. The first part of the definiens is almost always the genus (the wider class to which the term belongs). It is only as we refine the definition that we introduce the differentia (the distinguishing features). A good definition allows for the substitution of the defined by its definition (a bit awkward if we are trying to define God, for instance, or love). This would be impossible without a union of the general and the particular. A case could be made that the genus is more "lexical" while the differentia are more stipulative. But whatever the case, a definition must include a genus and a differentia because, as we said, it is bound to reflect reality and reality is hierarchical and inclusive ("The Matriushka Doll Principle").

"Chair" – Solid structure Intended for sitting (genus). Makes use of at least one bodily axis of the sitter (differentia). Without the differentia – with the genus alone – the definition can well fit a bed or a divan.

"Game" – Mental or physical activity of one or more people (the players), which deals with the accomplishment of goals (genus), in which both the activities and the goals accomplished are reversible (differentia). Without the differentia – with the genus alone – the definition can well fit most other human activities.

"Window" – Planar discontinuity in a solid surface (genus), which allows to look through it, or for the penetration of light or air (when open or not covered) (differentia). Without the differentia – with the genus alone – the definition can well fit a door.

"Table" – Structure with at least one leg and one flat surface (genus), intended for laying things on its surface(s) (differentia). Without the differentia – with the genus alone – the definition can well fit the statue of a one-legged soldier holding a tray.

It was Locke who realized that there are words whose meaning can be precisely explained but which cannot be DEFINED in this sense. This is either because the explanatory equivalent may require more than genus and differentia – or because some words cannot be defined by means of others (because those other words also have to be defined and this leads to infinite regression). If we adopt the broad view that a definition is the explanation of meaning by other words, how can we define "blue"? Only by pointing out examples of blue. Thus, names of elementary ideas (colors, for instance) cannot be defined by words. They require an "ostensive definition" (definition by pointing out examples). This is because elementary concepts apply to our experiences (emotions, sensations, or impressions) and to sensa (sense data). These are usually words in a private language, our private

language. How does one communicate (let alone define) the emotions one experiences during an epiphany? On the contrary: dictionary definitions suffer from gross inaccuracies precisely because they are confined to established meanings. They usually include in the definition things that they should have excluded, exclude things that they should have included or get it altogether wrong. Stipulative or ostensive definitions cannot be wrong (by definition). They may conflict with the lexical (dictionary) definition and diverge from established meanings. This may prove to be both confusing and costly (for instance, in legal matters). But this has nothing to do with their accuracy or truthfulness. Additionally, both types of definition may be insufficiently explanatory. They may be circular, or obscure, leaving more than one possibility open (ambiguous or equivocal).

Many of these problems are solved when we introduce context to the definition. Context has four conceptual pillars: time, place, cultural context and mental context (or mental characteristics). A definition, which is able to incorporate all four elements is monovalent, unequivocal, unambiguous, precise, universal, appropriately exclusive and inclusive, aesthetic and parsimonious.

"Chair" – Artificial (context) solid structure Intended for sitting (genus). Makes use of at least one bodily axis of the sitter (differentia). Without the context, the definition can well fit an appropriately shaped rock.

"Game" – Mental or physical activity of one or more people (the players), subject to agreed rules of confrontation, collaboration and scoring (context), which deals with the accomplishment of goals (genus), in which both the activities and the goals accomplished are reversible (differentia). Without the context, the definition

can well fit most other non-playing human activities.

"Window" – Planar discontinuity in a solid artificial (context) surface (genus), which allows to look through it, or for the penetration of light or air (when not covered or open) (differentia). Without the context, the definition can well fit a hole in a rock.

It is easy to notice that the distinction between the differentia and the context is rather blurred. Many of the diffrerentia are the result of cultural and historical context. A lot of the context emerges from the critical mass of differentia.

We have confined our discussion hitherto to the structural elements of a definition. But a definition is a dynamic process. It involves the sentence doing the defining, the process of defining and the resulting defining expression (definiens). This interaction between different definitions of definition gives rise to numerous forms of equivalence, all called "definitions". Real definitions, nominal definitions, prescriptive, contextual, recursive, inductive, persuasive, impredicative, extensional and intensional definitions, are stars in a galaxy of alternative modes of explanation.

But it all boils down to the same truth: it is the type of definition chosen and the rigorousness with which we understand the meaning of "definition" that determine which words can and cannot be defined. In my view, there is still a mistaken belief that there are terms which can be defined without going outside a specified realm(=set of terms). People are trying to define life or love by resorting to chemical reactions. This reductionism inevitably and invariably leads to the Locke paradoxes. It is true that a definition must include all the necessary conditions to the

definiendum. Chemical reactions are a necessary condition to life. But they are not sufficient conditions. A definition must include all the sufficient conditions as well.

Now we can try to define "definition" itself:

"Definition" – A statement which captures the meaning, the use, the function and the essence of a term or a concept.

Democracy, Participatory vs. Representative

Governors are recalled in midterm ballot initiatives, presidents deposed through referenda - the voice of the people is increasingly heard above the din of politics as usual. Is this Swiss-like participatory, direct democracy - or nascent mob rule?

The wave of direct involvement of the masses in politics is fostered by a confluence of trends:

1. The emergence of a class of full-time, "professional" politicians who are qualified to do little else and whose personal standing in the community is low. These "politicos" are generally perceived to be incompetent, stupid, hypocritical, liars, bigoted, corrupt, and narcissistically self-interested. It is a powerful universal stereotype.

2. Enhanced transparency in all levels of government and growing accountability of politicians, political parties, governments, corporations, and institutions.

3. Wider and faster dissemination of information regarding bad governance, corruption, venality, cronyism, and nepotism. This leads to widespread paranoia of the

average citizen and distrust of all social institutions and structures.

4. More efficient mechanisms of mobilization (for instance, the Internet).

But is it the end of representative democracy as we know it?

Hopefully it is. "Democracy" has long been hijacked by a plutocrats and bureaucrats. In between elections, they rule supreme, virtually unanswerable to the electorate. The same people circulate between the various branches of government, the legislature, the judiciary, and the world of business. This clubbish rendition of the democratic ideals is a travesty and a mockery. People power is the inevitable - though unwelcome - response.

"Never doubt that a small group of thoughtful concerned individuals can precipitate change in the world ... indeed, it is the only thing that ever has"

(Margaret Mead)

I. The Democratic Ideal and New Colonialism

"Democracy" is not the rule of the people. It is government by periodically vetted representatives of the people.

Democracy is not tantamount to a continuous expression of the popular will as it pertains to a range of issues. Functioning and fair democracy is representative and not participatory. Participatory "people power" is mob rule, not democracy.

Granted, "people power" is often required in order to

establish democracy where it is unprecedented. Revolutions - velvet, rose, and orange - recently introduced democracy in Eastern Europe, for instance. People power - mass street demonstrations - toppled obnoxious dictatorships from Iran to the Philippines and from Peru to Indonesia.

But once the institutions of democracy are in place and more or less functional, the people can and must rest. They should let their chosen delegates do the job they were elected to do. And they must hold their emissaries responsible and accountable in fair and free ballots once every two or four or five years.

As heads of the state in Latin America, Africa, Asia, and East Europe can attest, these vital lessons are lost on the dozens of "new democracies" the world over. Many of these presidents and prime ministers, though democratically elected (multiply, in some cases), have fallen prey to enraged and vigorous "people power" movements in their countries.

And these breaches of the democratic tradition are not the only or most egregious ones.

The West boasts of the three waves of democratization that swept across the world 1975. Yet, in most developing countries and nations in transition, "democracy" is an empty word. Granted, the hallmarks of democracy are there: candidate lists, parties, election propaganda, and voting. But its quiddity is absent. It is being consistently hollowed out and rendered mock by election fraud, exclusionary policies, cronyism, corruption, intimidation, and collusion with Western interests, both commercial and political.

The new "democracies" are thinly-disguised and criminalized plutocracies (recall the Russian oligarchs), authoritarian regimes (Central Asia and the Caucasus), or Vichy-like heterarchies (Macedonia, Bosnia, and Iraq, to mention three recent examples).

The new "democracies" suffer from many of the same ills that afflict their veteran role models: murky campaign finances, venal revolving doors between state administration and private enterprise, endemic corruption, self-censoring media, socially, economically, and politically excluded minorities, and so on. But while this malaise does not threaten the foundations of the United States and France - it does imperil the stability and future of the likes of Ukraine, Serbia, and Moldova, Indonesia, Mexico, and Bolivia.

Worse still, the West has transformed the ideal of democracy into an ideology at the service of imposing a new colonial regime on its former colonies. Spearheaded by the United States, the white and Christian nations of the West embarked with missionary zeal on a transformation, willy-nilly, of their erstwhile charges into paragons of democracy and good governance.

And not for the first time. Napoleon justified his gory campaigns by claiming that they served to spread French ideals throughout a barbarous world. Kipling bemoaned the "White Man's (civilizing) burden", referring specifically to Britain's role in India. Hitler believed himself to be the last remaining barrier between the hordes of Bolshevism and the West. The Vatican concurred with him.

This self-righteousness would have been more tolerable had the West actually meant and practiced what it

preached, however self-delusionally. Yet, in dozens of cases in the last 60 years alone, Western countries intervened, often by force of arms, to reverse and nullify the outcomes of perfectly legal and legitimate popular and democratic elections. They did so because of economic and geopolitical interests and they usually installed rabid dictators in place of the deposed elected functionaries.

This hypocrisy cost them dearly. Few in the poor and developing world believe that the United States or any of its allies are out to further the causes of democracy, human rights, and global peace. The nations of the West have sown cynicism and they are reaping strife and terrorism in return.

Moreover, democracy is far from what it is made out to be. Confronted with history, the myth breaks down.

For instance, it is maintained by their chief proponents that democracies are more peaceful than dictatorships. But the two most belligerent countries in the world are, by a wide margin, Israel and the United States (closely followed by the United Kingdom). As of late, China is one of the most tranquil polities.

Democracies are said to be inherently stable (or to successfully incorporate the instability inherent in politics). This, too, is a confabulation. The Weimar Republic gave birth to Adolf Hitler and Italy had almost 50 governments in as many years. The bloodiest civil wars in history erupted in Republican Spain and, seven decades earlier, in the United States. Czechoslovakia, the USSR, and Yugoslavia imploded upon becoming democratic, having survived intact for more than half a century as tyrannies.

Democracies are said to be conducive to economic growth (indeed, to be a prerequisite to such). But the fastest economic growth rates in history go to imperial Rome, Nazi Germany, Stalinist Russia, and post-Mao China.

Finally, how represented is the vox populi even in established democracies?

In a democracy, people can freely protest and make their opinions known, no doubt. Sometimes, they can even change their representatives (though the rate of turnover in the US Congress in the last two decades is lower than it was in the last 20 years of the Politburo).

But is this a sufficient incentive (or deterrent)? The members of the various elites in Western democracies are mobile - they ceaselessly and facilely hop from one lucrative sinecure to another. Lost the elections as a Senator? How about a multi-million dollar book contract, a consultant position with a firm you formerly oversaw or regulated, your own talk show on television, a cushy job in the administration?

The truth is that voters are powerless. The rich and mighty take care of their own. Malfeasance carries little risk and rarely any sanction. Western democracies are ossified bastions of self-perpetuating interest groups aided and abetted and legitimized by the ritualized spectacle that we call "elections". And don't you think the denizens of Africa and Asia and eastern Europe and the Middle East are blissfully unaware of this charade.

II. Democracy and Empire

As the United states is re-discovering in Iraq and Israel in Palestine, maintaining democratic institutions and empire-building are incompatible activities. History repeatedly

shows that one cannot preserve a democratic core in conjunction with an oppressed periphery of colonial real estate.

The role of imperial power entails the suppression, subversion, or manipulation of all forms of free speech, governance, and elections. It usually involves unsavory practices such as torture, illegal confinement, assassinations, and collusion with organized crime. Empires typically degenerate into an abyss of corruption, megalomaniacal projects, deceit, paranoia, and self-directed aggression.

The annals of both Rome and Britain teach us that, as democracy grows entrenched, empires disintegrate fitfully. Rome chose to keep its empire by sacrificing its republic. Britain chose to democratize by letting go of its unwieldy holdings overseas. Both polities failed to uphold their erstwhile social institutions while they grappled with their smothering possessions.

Destructibility (Film Review “Dreamcatcher”)

In the movie "Dreamcatcher", four childhood friends, exposed to an alien, disguised as a retarded child, develop psychic powers. Years later they reunite only to confront a vicious extraterrestrial life-form. Only two survive but they succeed to eradicate the monster by incinerating it and crushing its tiny off-spring underfoot.

Being mortal ourselves, we cannot conceive of an indestructible entity. The artifacts of popular culture - thrillers, action and sci-fi films, video games, computer viruses - assume that all organisms, organizations and

automata possess fatal vulnerabilities. Medicine and warfare are predicated on a similar contention.

We react with shock and horror when we are faced with "resistant stains" of bacteria or with creatures, machines, or groups able to survive and thrive in extremely hostile environments.

Destruction is multi-faceted. Even the simplest system has a structure and performs functions. If the spatial continuity or arrangement of an entity's structure is severed or substantially transformed - its functions are usually adversely affected. Direct interference with a system's functionality is equally deleterious.

We can render a system dysfunctional by inhibiting or reversing any stage in the complex processes involved - or by preventing the entity's communication with its environs. Another method of annihilation involves the alteration of the entity's context - its surroundings, its codes and signals, its interactive patterns, its potential partners, friends and foes.

Finding the lethal weaknesses of an organism, an apparatus, or a society is described as a process of trial and error. But the outcome is guaranteed: mortal susceptibility is assumed to be a universal trait. No one and nothing is perfectly immune, utterly invulnerable, or beyond extermination.

Yet, what is poison to one species is nectar to another. Water can be either toxic or indispensable, depending on the animal, the automaton, or the system. Scorching temperatures, sulfur emissions, ammonia or absolute lack of oxygen are, to some organisms, the characteristics of inviting habitats. To others, the very same are deadly.

Can we conceive of an indestructible thing - be it unicellular or multicellular, alive or robotic, composed of independent individuals or acting in perfect, centrally-dictated unison? Can anything be, in principle, eternal?

This question is not as outlandish as it sounds. By fighting disease and trying to postpone death, for instance, we aspire to immortality and imperishability. Some of us believe in God - an entity securely beyond ruin. Intuitively, we consider the Universe - if not time and space - to be everlasting, though constantly metamorphosing.

What is common to these examples of infinite resilience is their unbounded and unparalleled size and might. Lesser objects are born or created. Since there has been a time, prior to their genesis, in which they did not exist - it is easy to imagine a future without them.

Even where the distinction between individual and collective is spurious their end is plausible. True, though we can obliterate numerous "individual" bacteria - others, genetically identical, will always survive our onslaught. Yet, should the entire Earth vanish - so would these organisms. The extinction of all bacteria, though predicated on an unlikely event, is still thinkable.

But what about an entity that is "pure energy", a matrix of fields, a thought, immaterial yet very real, omnipresent and present nowhere? Such a being comes perilously close to the divine. For if it is confined to certain space - however immense - it is perishable together with that space. If it is not - then it is God, as perceived by its believers.

But what constitutes "destruction" or "annihilation"? We

are familiar with death - widely considered the most common form of inexistence. But some people believe that death is merely a transformation from one state of being to another. Sometimes all the constituents of a system remain intact but cease to interact. Does this amount to obliteration? And what about a machine that stops interacting with its environment altogether - though its internal processes continue unabated. Is it still "functioning"?

It is near impossible to say when a "live" or "functioning" entity ceases to be so. Death is the form of destruction we are most acquainted with. For a discussion of death and the human condition - read this Death, Meaning, and Identity.

Disease

We are all terminally ill. It is a matter of time before we all die. Aging and death remain almost as mysterious as ever. We feel awed and uncomfortable when we contemplate these twin afflictions. Indeed, the very word denoting illness contains its own best definition: dis-ease. A mental component of lack of well being must exist SUBJECTIVELY. The person must FEEL bad, must experience discomfiture for his condition to qualify as a disease. To this extent, we are justified in classifying all diseases as "spiritual" or "mental".

Is there any other way of distinguishing health from sickness - a way that does NOT depend on the report that the patient provides regarding his subjective experience?

Some diseases are manifest and others are latent or immanent. Genetic diseases can exist - unmanifested - for generations. This raises the philosophical problem or whether a potential disease IS a disease? Are AIDS and

Haemophilia carriers - sick? Should they be treated, ethically speaking? They experience no dis-ease, they report no symptoms, no signs are evident. On what moral grounds can we commit them to treatment? On the grounds of the "greater benefit" is the common response. Carriers threaten others and must be isolated or otherwise neutered. The threat inherent in them must be eradicated. This is a dangerous moral precedent. All kinds of people threaten our well-being: unsettling ideologists, the mentally handicapped, many politicians. Why should we single out our physical well-being as worthy of a privileged moral status? Why is our mental well being, for instance, of less import?

Moreover, the distinction between the psychic and the physical is hotly disputed, philosophically. The psychophysical problem is as intractable today as it ever was (if not more so). It is beyond doubt that the physical affects the mental and the other way around. This is what disciplines like psychiatry are all about. The ability to control "autonomous" bodily functions (such as heartbeat) and mental reactions to pathogens of the brain are proof of the artificialness of this distinction.

It is a result of the reductionist view of nature as divisible and summable. The sum of the parts, alas, is not always the whole and there is no such thing as an infinite set of the rules of nature, only an asymptotic approximation of it. The distinction between the patient and the outside world is superfluous and wrong. The patient AND his environment are ONE and the same. Disease is a perturbation in the operation and management of the complex ecosystem known as patient-world. Humans absorb their environment and feed it in equal measures. This on-going interaction IS the patient. We cannot exist

without the intake of water, air, visual stimuli and food. Our environment is defined by our actions and output, physical and mental.

Thus, one must question the classical differentiation between "internal" and "external". Some illnesses are considered "endogenic" (=generated from the inside). Natural, "internal", causes - a heart defect, a biochemical imbalance, a genetic mutation, a metabolic process gone awry - cause disease. Aging and deformities also belong in this category.

In contrast, problems of nurturance and environment - early childhood abuse, for instance, or malnutrition - are "external" and so are the "classical" pathogens (germs and viruses) and accidents.

But this, again, is a counter-productive approach. Exogenic and Endogenic pathogenesis is inseparable. Mental states increase or decrease the susceptibility to externally induced disease. Talk therapy or abuse (external events) alter the biochemical balance of the brain. The inside constantly interacts with the outside and is so intertwined with it that all distinctions between them are artificial and misleading. The best example is, of course, medication: it is an external agent, it influences internal processes and it has a very strong mental correlate (=its efficacy is influenced by mental factors as in the placebo effect).

The very nature of dysfunction and sickness is highly culture-dependent. Societal parameters dictate right and wrong in health (especially mental health). It is all a matter of statistics. Certain diseases are accepted in certain parts of the world as a fact of life or even a sign of distinction (e.g., the paranoid schizophrenic as chosen by

the gods). If there is no dis-ease there is no disease. That the physical or mental state of a person CAN be different - does not imply that it MUST be different or even that it is desirable that it should be different. In an over-populated world, sterility might be the desirable thing - or even the occasional epidemic. There is no such thing as ABSOLUTE dysfunction. The body and the mind ALWAYS function. They adapt themselves to their environment and if the latter changes - they change. Personality disorders are the best possible responses to abuse. Cancer may be the best possible response to carcinogens. Aging and death are definitely the best possible response to over-population. Perhaps the point of view of the single patient is incommensurate with the point of view of his species - but this should not serve to obscure the issues and derail rational debate.

As a result, it is logical to introduce the notion of "positive aberration". Certain hyper- or hypo- functioning can yield positive results and prove to be adaptive. The difference between positive and negative aberrations can never be "objective". Nature is morally-neutral and embodies no "values" or "preferences". It simply exists. WE, humans, introduce our value systems, prejudices and priorities into our activities, science included. It is better to be healthy, we say, because we feel better when we are healthy. Circularity aside - this is the only criterion that we can reasonably employ. If the patient feels good - it is not a disease, even if we all think it is. If the patient feels bad, ego-dystonic, unable to function - it is a disease, even when we all think it isn't. Needless to say that I am referring to that mythical creature, the fully informed patient. If someone is sick and knows no better (has never been healthy) - then his decision should be respected only after he is given the chance to experience health.

All the attempts to introduce "objective" yardsticks of health are plagued and philosophically contaminated by the insertion of values, preferences and priorities into the formula - or by subjecting the formula to them altogether. One such attempt is to define health as "an increase in order or efficiency of processes" as contrasted with illness which is "a decrease in order (=increase of entropy) and in the efficiency of processes". While being factually disputable, this dyad also suffers from a series of implicit value-judgements. For instance, why should we prefer life over death? Order to entropy? Efficiency to inefficiency?

Health and sickness are different states of affairs. Whether one is preferable to the other is a matter of the specific culture and society in which the question is posed. Health (and its lack) is determined by employing three "filters" as it were:

1. Is the body affected?
2. Is the person affected? (dis-ease, the bridge between "physical" and "mental illnesses)
3. Is society affected?

In the case of mental health the third question is often formulated as "is it normal" (=is it statistically the norm of this particular society in this particular time)?

We must re-humanize disease. By imposing upon issues of health the pretensions of the accurate sciences, we objectified the patient and the healer alike and utterly neglected that which cannot be quantified or measured - the human mind, the human spirit.

Dispute Resolution and Settlement

Wherever interests meet - they tend to clash. Disputes are an inevitable and inseparable part of commercial life. Mankind invented many ways to settle disputes. Each way relies on a different underlying principle. Generally speaking, there are four such principles: justice, law, logic and force.

Disputes can be resolved by resorting to force. One party can force the other to accept his opinion and to comply by his conditions and demands. Obeisance should not be confused with acceptance. The coerced party is likely to at least sabotage the interests of the coercing one. In due time, a mutiny is more likely than not. Force is always met by force, as Newton discovered.

This revolution and counter-revolution has a devastating effect on wealth formation. The use of force does ensure that the distribution of wealth will be skewed and biased in favour of the forceful party. But the cake to be divided grows smaller and smaller, wealth diminishes and, in due course, there is almost nothing left to fight over.

Another mechanism of dispute settlement involves the application of the law. This mechanism also relies (ultimately) on enforcement (therefore, on force). But it maintains the semblance of objectivity and unbiased treatment of the contestants. It does so by relegating both functions - of legislating and of adjudication - to third, uninterested parties. Bu this misses the crucial point. The problem is not "who makes the laws" or "who administers them". The problem is "how are the laws applied". If a bias exists, if a party is favoured it is at the stage of administering justice and the impartiality of the arbitrator (the judge) does not guarantee a fair outcome. The results of trials have been shown to depend greatly on the social and economic standing of the disputants, on the social

background and ethnic affiliation of the judge. Above all: the more money a party is - the more the court is tilted in its favour. The laws of procedure are such that wealthy applicants (represented by wealthy lawyers) are more likely to win. The substantive law contains preferences: ethnic, economic, ideological, historical, social and so on. Applying the law to the settlement of disputes is tantamount to applying force to them. The difference is in style, rather than in substance. When law enforcement agencies get involved - even this minor stylistic difference tends to evaporate.

Perhaps a better system would have been the application of the principles of justice to disputes - had people been able to agree what they were. Justice is an element in the legal system, but it is "tainted" by ulterior considerations (social, etc.) In its purified form it reflects impartiality of administering principles of settlement - as well as impartiality of forming, or of formulating them. The application of just principles is entrusted to non-professional people, who are thought to possess or to embody justice ("just" or "honest" people). The system of application is not encumbered by laws of procedure and the parties have no built-in advantages. Arbitration processes are middle-ground between principles of law and principles of justice.

Both the law and justice tend, as a minimal condition, to preserve wealth. In many cases they tend to increase it. No "right" distribution is guaranteed by either system - but, at least, no destruction of wealth is possible. The reason is the principle of consent. Embedded in both systems is the implicit agreement to abide by the rules, to accept final judgements, to succumb to legal instructions, not to use force to try and enforce unfavourable outcomes.

A revolution is, of course, possible, or, on a smaller scale, a violation of a decision or a judgement rendered by a competent, commonly accepted court. But, then, we are dealing with the application of the principle of force, rather than of law or justice.

An even stronger statement of law and justice is logic. Not logic in the commonsensical rendition of it - rather, the laws of nature. By "logic" we mean the immutable ways in which the world is governed, in which forces are channelled, under which circumstances arise or subside. The laws of nature should (and in many respects) do underlie all the human systems of law and order. This is the meaning of "natural justice" in the most profound sense of the phrase.

Dreams and Dreaming

Are dreams a source of reliable divination? Generations upon generations seem to have thought so. They incubated dreams by travelling afar, by fasting and by engaging in all other manners of self deprivation or intoxication. With the exception of this highly dubious role, dreams do seem to have three important functions:

1. To process repressed emotions (wishes, in Freud's speech) and other mental content which was suppressed and stored in the unconscious.

2. To order, classify and, generally, to pigeonhole conscious experiences of the day or days preceding the dreaming ("day residues"). A partial overlap with the former function is inevitable: some sensory input is immediately relegated to the darker and dimmer kingdoms of the subconscious and unconscious without being consciously

processed at all.

3. To "stay in touch" with the outside world. External sensory input is interpreted by the dream and represented in its unique language of symbols and disjunction. Research has shown this to be a rare event, independent of the timing of the stimuli: during sleep or immediately prior to it. Still, when it does happen, it seems that even when the interpretation is dead wrong – the substantial information is preserved. A collapsing bedpost (as in Maury's famous dream) will become a French guillotine, for instance. The message conserved: there is physical danger to the neck and head.

All three functions are part of a much larger one:

The continuous adjustment of the model one has of one's self and of one's place in the world – to the incessant stream of sensory (external) input and of mental (internal) input. This "model modification" is carried out through an intricate, symbol laden, dialogue between the dreamer and himself. It probably also has therapeutic side benefits. It would be an over-simplification to say that the dream carries messages (even if we were to limit it to correspondence with one's self). The dream does not seem to be in a position of privileged knowledge. The dream functions more like a good friend would: listening, advising, sharing experiences, providing access to remote territories of the mind, putting events in perspective and in proportion and provoking. It, thus, induces relaxation and acceptance and a better functioning of the "client". It does so, mostly, by analysing discrepancies and incompatibilities. No wonder that it is mostly associated with bad emotions (anger, hurt, fear). This also happens in the course of successful psychotherapy. Defences are

gradually dismantled and a new, more functional, view of the world is established. This is a painful and frightening process. This function of the dream is more in line with Jung's view of dreams as "compensatory". The previous three functions are "complementary" and, therefore, Freudian.

It would seem that we are all constantly engaged in maintenance, in preserving that which exists and inventing new strategies for coping. We are all in constant psychotherapy, administered by ourselves, day and night. Dreaming is just the awareness of this on-going process and its symbolic content. We are more susceptible, vulnerable, and open to dialogue while we sleep. The dissonance between how we regard ourselves, and what we really are and between our model of the world and reality – this dissonance is so enormous that it calls for a (continuous) routine of evaluation, mending and re-invention. Otherwise, the whole edifice might crumble. The delicate balance between we, the dreamers, and the world might be shattered, leaving us defenceless and dysfunctional.

To be effective, dreams must come equipped with the key to their interpretation. We all seem to possess an intuitive copy of just such a key, uniquely tailored to our needs, to our data and to our circumstances. This Areiocritica helps us to decipher the true and motivating meaning of the dialogue. This is one reason why dreaming is discontinuous: time must be given to interpret and to assimilate the new model. Four to six sessions take place every night. A session missed will be held the night after. If a person is prevented from dreaming on a permanent basis, he will become irritated, then neurotic and then psychotic. In other words: his model of himself and of the

world will no longer be usable. It will be out of synch. It will represent both reality and the non-dreamer wrongly. Put more succinctly: it seems that the famous "reality test" (used in psychology to set apart the "functioning, normal" individuals from those who are not) is maintained by dreaming. It fast deteriorates when dreaming is impossible. This link between the correct apprehension of reality (reality model), psychosis and dreaming has yet to be explored in depth. A few predictions can be made, though:

a. The dream mechanisms and/or dream contents of psychotics must be substantially different and distinguished from ours. Their dreams must be "dysfunctional", unable to tackle the unpleasant, bad emotional residue of coping with reality. Their dialogue must be disturbed. They must be represented rigidly in their dreams. Reality must not be present in them not at all.

b. Most of the dreams, most of the time must deal with mundane matters. Their content must not be exotic, surrealist, extraordinary. They must be chained to the dreamer's realities, his (daily) problems, people that he knows, situations that he encountered or is likely to encounter, dilemmas that he is facing and conflicts that he would have liked resolved. This, indeed, is the case. Unfortunately, this is heavily disguised by the symbol language of the dream and by the disjointed, disjunctive, dissociative manner in which it

proceeds. But a clear separation must be made between subject matter (mostly mundane and "dull", relevant to the dreamer's life) and the script or mechanism (colourful symbols, discontinuity of space, time and purposeful action).

c. The dreamer must be the main protagonist of his dreams, the hero of his dreamy narratives. This, overwhelmingly, is the case: dreams are egocentric. They are concerned mostly with the "patient" and use other figures, settings, locales, situations to cater to his needs, to reconstruct his reality test and to adapt it to the new input from outside and from within.

d. If dreams are mechanisms, which adapt the model of the world and the reality test to daily inputs – we should find a difference between dreamers and dreams in different societies and cultures. The more "information heavy" the culture, the more the dreamer is bombarded with messages and data – the fiercer should the dream activity be. Every external datum likely generates a shower of internal data. Dreamers in the West should engage in a qualitatively different type of dreaming. We will elaborate on this as we continue. Suffice it to say, at this stage, that dreams in information-cluttered societies will employ more symbols, will weave them more intricately and the dreams will be

much more erratic and discontinuous. As a result, dreamers in information-rich societies will never mistake a dream for reality. They will never confuse the two. In information poor cultures (where most of the daily inputs are internal) – such confusion will arise very often and even be enshrined in religion or in the prevailing theories regarding the world. Anthropology confirms that this, indeed, is the case. In information poor societies dreams are less symbolic, less erratic, more continuous, more "real" and the dreamers often tend to fuse the two (dream and reality) into a whole and act upon it.

e. To complete their mission successfully (adaptation to the world using the model of reality modified by them) – dreams must make themselves felt. They must interact with the dreamer's real world, with his behaviour in it, with his moods that bring his behaviour about, in short: with his whole mental apparatus. Dreams seem to do just this: they are remembered in half the cases. Results are, probably, achieved without need for cognitive, conscious processing, in the other, unremembered, or disremembered cases. They greatly influence the immediate mood after awakening. They are discussed, interpreted, force people to think and re-think. They are dynamos of (internal and external) dialogue long after they have faded into the recesses of the mind.

> Sometimes they directly influence actions and many people firmly believe in the quality of the advice provided by them. In this sense, dreams are an inseparable part of reality. In many celebrated cases they even induced works of art or inventions or scientific discoveries (all adaptations of old, defunct, reality models of the dreamers). In numerous documented cases, dreams tackled, head on, issues that bothered the dreamers during their waking hours.

How does this theory fit with the hard facts?

Dreaming (D-state or D-activity) is associated with a special movement of the eyes, under the closed eyelids, called Rapid Eye Movement (REM). It is also associated with changes in the pattern of electrical activity of the brain (EEG). A dreaming person has the pattern of someone who is wide awake and alert. This seems to sit well with a theory of dreams as active therapists, engaged in the arduous task of incorporating new (often contradictory and incompatible) information into an elaborate personal model of the self and the reality that it occupies.

There are two types of dreams: visual and "thought-like" (which leave an impression of being awake on the dreamer). The latter happens without any REM cum EEG fanfare. It seems that the "model-adjustment" activities require abstract thinking (classification, theorizing, predicting, testing, etc.). The relationship is very much like the one that exists between intuition and formalism, aesthetics and scientific discipline, feeling and thinking, mentally creating and committing one's creation to a

medium.

All mammals exhibit the same REM/EEG patterns and may, therefore, be dreaming as well. Some birds do it, and some reptiles as well. Dreaming seems to be associated with the brain stem (Pontine tegmentum) and with the secretion of Norepinephrine and Serotonin in the brain. The rhythm of breathing and the pulse rate change and the skeletal muscles are relaxed to the point of paralysis (presumably, to prevent injury if the dreamer should decide to engage in enacting his dream). Blood flows to the genitals (and induces penile erections in male dreamers). The uterus contracts and the muscles at the base of the tongue enjoy a relaxation in electrical activity.

These facts would indicate that dreaming is a very primordial activity. It is essential to survival. It is not necessarily connected to higher functions like speech but it is connected to reproduction and to the biochemistry of the brain. The construction of a "world-view", a model of reality is as critical to the survival of an ape as it is to ours. And the mentally disturbed and the mentally retarded dream as much as the normal do. Such a model can be innate and genetic in very simple forms of life because the amount of information that needs to be incorporated is limited. Beyond a certain amount of information that the individual is likely to be exposed to daily, two needs arise. The first is to maintain the model of the world by eliminating "noise" and by realistically incorporating negating data and the second is to pass on the function of modelling and remodelling to a much more flexible structure, to the brain. In a way, dreams are about the constant generation, construction and testing of theories regarding the dreamer and his ever-changing internal and external environments. Dreams are the

scientific community of the Self. That Man carried it further and invented Scientific Activity on a larger, external, scale is small wonder.

Physiology also tells us the differences between dreaming and other hallucinatory states (nightmares, psychoses, sleepwalking, daydreaming, hallucinations, illusions and mere imagination): the REM/EEG patterns are absent and the latter states are much less "real". Dreams are mostly set in familiar places and obey the laws of nature or some logic. Their hallucinatory nature is a hermeneutic imposition. It derives mainly from their erratic, abrupt behaviour (space, time and goal discontinuities) which is ONE of the elements in hallucinations as well.

Why is dreaming conducted while we sleep? Probably, there is something in it which requires what sleep has to offer: limitation of external, sensory, inputs (especially visual ones – hence the compensatory strong visual element in dreams). An artificial environment is sought in order to maintain this periodical, self-imposed deprivation, static state and reduction in bodily functions. In the last 6-7 hours of every sleep session, 40% of the people wake up. About 40% - possibly the same dreamers – report that they had a dream in the relevant night. As we descend into sleep (the hypnagogic state) and as we emerge from it (the hypnopompic state) – we have visual dreams. But they are different. It is as though we are "thinking" these dreams. They have no emotional correlate, they are transient, undeveloped, abstract and expressly deal with the day residues. They are the "garbage collectors", the "sanitation department" of the brain. Day residues, which clearly do not need to be processed by dreams – are swept under the carpet of consciousness (maybe even erased).

Suggestible people dream what they have been instructed to dream in hypnosis – but not what they have been so instructed while (partly) awake and under direct suggestion. This further demonstrates the independence of the Dream Mechanism. It almost does not react to external sensory stimuli while in operation. It takes an almost complete suspension of judgement in order to influence the contents of dreams.

It would all seem to point at another important feature of dreams: their economy. Dreams are subject to four "articles of faith" (which govern all the phenomena of life):

1. ***Homeostasis*** - The preservation of the internal environment, an equilibrium between (different but interdependent) elements which make up the whole.

2. ***Equilibrium*** - The maintenance of an internal environment in balance with an external one.

3. ***Optimization*** (also known as efficiency) - The securing of maximum results with minimum invested resources and minimum damage to other resources, not directly used in the process.

4. ***Parsimony*** (Occam's razor) - The utilization of a minimal set of (mostly known) assumptions, constraints, boundary conditions and initial conditions in order to achieve maximum explanatory or modelling power.

In compliance with the above four principles dreams HAD to resort to visual symbols. The visual is the most condensed (and efficient) form of packaging information. "A picture is worth a thousand words" the saying goes and

computer users know that to store images requires more memory than any other type of data. But dreams have an unlimited capacity of information processing at their disposal (the brain at night). In dealing with gigantic amounts of information, the natural preference (when processing power is not constrained) would be to use visuals. Moreover, non-isomorphic, polyvalent forms will be preferred. In other words: symbols that can be "mapped" to more than one meaning and those that carry a host of other associated symbols and meanings with them will be preferred. Symbols are a form of shorthand. They haul a great amount of information – most of it stored in the recipient's brain and provoked by the symbol. This is a little like the Java applets in modern programming: the application is divided to small modules, which are stored in a central computer. The symbols generated by the user's computer (using the Java programming language) "provoke" them to surface. The result is a major simplification of the processing terminal (the net-PC) and an increase in its cost efficiency.

Both collective symbols and private symbols are used. The collective symbols (Jung's archetypes?) prevent the need to re-invent the wheel. They are assumed to constitute a universal language usable by dreamers everywhere. The dreaming brain has, therefore, to attend to and to process only the "semi-private language" elements. This is less time consuming and the conventions of a universal language apply to the communication between the dream and the dreamer.

Even the discontinuities have their reason. A lot of the information that we absorb and process is either "noise" or repetitive. This fact is known to the authors of all the file compression applications in the world. Computer files can

be compressed to one tenth their size without appreciably losing information. The same principle is applied in speed reading – skimming the unnecessary bits, getting straight to the point. The dream employs the same principles: it skims, it gets straight to the point and from it – to yet another point. This creates the sensation of being erratic, of abruptness, of the absence of spatial or temporal logic, of purposelessness. But this all serves the same purpose: to succeed to finish the Herculean task of refitting the model of the Self and of the World in one night.

Thus, the selection of visuals, symbols, and collective symbols and of the discontinuous mode of presentation, their preference over alternative methods of representation is not accidental. This is the most economic and unambiguous way of representation and, therefore, the most efficient and the most in compliance with the four principles. In cultures and societies, where the mass of information to be processed is less mountainous – these features are less likely to occur and indeed, they don't.

Excerpts from an Interview about DREAMS - First published in Suite101

Dreams are by far the most mysterious phenomenon in mental life. On the face of it, dreaming is a colossal waste of energy and psychic resources. Dreams carry no overt information content. They bear little resemblance to reality. They interfere with the most critical biological maintenance function - with sleep. They don't seem to be goal oriented, they have no discernible objective. In this age of technology and precision, efficiency and optimization - dreams seem to be a somewhat anachronistically quaint relic of our life in the savannah. Scientists are people who believe in the aesthetic preservation of resources. They believe that nature is

intrinsically optimal, parsimonious and "wise". They dream up symmetries, "laws" of nature, minimalist theories. They believe that everything has a reason and a purpose. In their approach to dreams and dreaming, scientists commit all these sins combined. They anthropomorphesize nature, they engage in teleological explanations, they attribute purpose and paths to dreams, where there might be none. So, they say that dreaming is a maintenance function (the processing of the preceding day's experiences) - or that it keeps the sleeping person alert and aware of his environment. But no one knows for sure. We dream, no one knows why. Dreams have elements in common with dissociation or hallucinations but they are neither. They employ visuals because this is the most efficient way of packing and transferring information. But WHICH information? Freud's "Interpretation of Dreams" is a mere literary exercise. It is not a serious scientific work (which does not detract from its awesome penetration and beauty).

I have lived in Africa, the Middle East, North America, Western Europe and Eastern Europe. Dreams fulfil different societal functions and have distinct cultural roles in each of these civilizations. In Africa, dreams are perceived to be a mode of communication, as real as the internet is to us.

Dreams are pipelines through which messages flow: from the beyond (life after death), from other people (such as shamans - remember Castaneda), from the collective (Jung), from reality (this is the closest to Western interpretation), from the future (precognition), or from assorted divinities. The distinction between dream states and reality is very blurred and people act on messages contained in dreams as they would on any other

information they obtain in their "waking" hours. This state of affairs is quite the same in the Middle East and Eastern Europe where dreams constitute an integral and important part of institutionalized religion and the subject of serious analyses and contemplation. In North America - the most narcissistic culture ever - dreams have been construed as communications WITHIN the dreaming person. Dreams no longer mediate between the person and his environment. They are the representation of interactions between different structures of the "self". Their role is, therefore, far more limited and their interpretation far more arbitrary (because it is highly dependent on the personal circumstances and psychology of the specific dreamer).

Narcissism IS a dream state. The narcissist is totally detached from his (human) milieu. Devoid of empathy and obsessively centred on the procurement of narcissistic supply (adulation, admiration, etc.) - the narcissist is unable to regard others as three dimensional beings with their own needs and rights. This mental picture of narcissism can easily serve as a good description of the dream state where other people are mere representations, or symbols, in a hermeneutically sealed thought system. Both narcissism and dreaming are AUTISTIC states of mind with severe cognitive and emotional distortions. By extension, one can talk about "narcissistic cultures" as "dream cultures" doomed to a rude awakening. It is interesting to note that most narcissists I know from my correspondence or personally (myself included) have a very poor dream-life and dreamscape. They remember nothing of their dreams and are rarely, if ever, motivated by insights contained in them.

The Internet is the sudden and voluptuous embodiment of

my dreams. It is too good to me to be true - so, in many ways, it isn't. I think Mankind (at least in the rich, industrialized countries) is moonstruck. It surfs this beautiful, white landscape, in suspended disbelief. It holds it breath. It dares not believe and believes not its hopes. The Internet has, therefore, become a collective phantasm - at times a dream, at times a nightmare. Entrepreneurship involves massive amounts of dreaming and the net is pure entrepreneurship.

Drugs, Decriminalization of

The decriminalization of drugs is a tangled issue involving many separate moral/ethical and practical strands which can, probably, be summarized thus:

a. Whose body is it anyway? Where do "I" start and the government begins? What gives the state the right to intervene in decisions pertaining only to my self and countervene them?

PRACTICAL:

The government exercises similar "rights" in other cases (abortion, military conscription, sex)

b. Is the government the optimal moral agent, the best or the right arbiter, as far as drug abuse is concerned?

PRACTICAL:

For instance, governments collaborate with the illicit drug trade when it fits their realpolitik purposes.

c. Is substance abuse a PERSONAL or a SOCIAL choice? Can one LIMIT the implications, repercussions and outcomes of one's choices in general and of the choice to abuse drugs, in particular? If the drug abuser in effect makes decisions for others, too - does it justify the intervention of the state? Is the state the agent of society, is it the ONLY agent of society and is it the RIGHT agent of society in the case of drug abuse?

d. What is the difference (in rigorous philosophical principle) between legal and illegal substances? Is it something in the NATURE of the substances? In the USAGE and what follows? In the structure of SOCIETY? Is it a moral fashion?

PRACTICAL:

Does scientific research supprt or refute common myths and ethos regarding drugs and their abuse? Is scientific research INFLUENCED by the current anti-drugs crusade and hype? Are certain facts suppressed and certain subjects left unexplored?

e. Should drugs be decriminalized for certain purposes (e.g., marijuana and glaucoma)? If so, where should the line be drawn and by whom?

PRACTICAL:

Recreative drugs sometimes alleviate depression. Should this use be permitted?

E

Economics, Behavioral Aspects of

"It is impossible to describe any human action if one does not refer to the meaning the actor sees in the stimulus as well as in the end his response is aiming at."
Ludwig von Mises

Economics - to the great dismay of economists - is merely a branch of psychology. It deals with individual behaviour and with mass behaviour. Many of its practitioners sought to disguise its nature as a social science by applying complex mathematics where common sense and direct experimentation would have yielded far better results.

The outcome has been an embarrassing divorce between economic theory and its subjects.

The economic actor is assumed to be constantly engaged in the rational pursuit of self interest. This is not a realistic model - merely a useful approximation. According to this latter day - rational - version of the dismal science, people refrain from repeating their mistakes systematically. They seek to optimize their preferences. Altruism can be such a preference, as well.

Still, many people are non-rational or only nearly rational in certain situations. And the definition of "self-interest" as the pursuit of the fulfillment of preferences is a tautology.

The theory fails to predict important phenomena such as "strong reciprocity" - the propensity to "irrationally" sacrifice resources to reward forthcoming collaborators

and punish free-riders. It even fails to account for simpler forms of apparent selflessness, such as reciprocal altruism (motivated by hopes of reciprocal benevolent treatment in the future).

Even the authoritative and mainstream 1995 "Handbook of Experimental Economics", by John Hagel and Alvin Roth (eds.) admits that people do not behave in accordance with the predictions of basic economic theories, such as the standard theory of utility and the theory of general equilibrium. Irritatingly for economists, people change their preferences mysteriously and irrationally. This is called "preference reversals".

Moreover, people's preferences, as evidenced by their choices and decisions in carefully controlled experiments, are inconsistent. They tend to lose control of their actions or procrastinate because they place greater importance (i.e., greater "weight") on the present and the near future than on the far future. This makes most people both irrational and unpredictable.

Either one cannot design an experiment to rigorously and validly test theorems and conjectures in economics - or something is very flawed with the intellectual pillars and models of this field.

Neo-classical economics has failed on several fronts simultaneously. This multiple failure led to despair and the re-examination of basic precepts and tenets.

Consider this sample of outstanding issues:

Unlike other economic actors and agents, governments are accorded a special status and receive special treatment in economic theory. Government is alternately cast as a saint, seeking to selflessly maximize social welfare - or as

the villain, seeking to perpetuate and increase its power ruthlessly, as per public choice theories.

Both views are caricatures of reality. Governments indeed seek to perpetuate their clout and increase it - but they do so mostly in order to redistribute income and rarely for self-enrichment.

Economics also failed until recently to account for the role of innovation in growth and development. The discipline often ignored the specific nature of knowledge industries (where returns increase rather than diminish and network effects prevail). Thus, current economic thinking is woefully inadequate to deal with information monopolies (such as Microsoft), path dependence, and pervasive externalities.

Classic cost/benefit analyses fail to tackle very long term investment horizons (i.e., periods). Their underlying assumption - the opportunity cost of delayed consumption - fails when applied beyond the investor's useful economic life expectancy. People care less about their grandchildren's future than about their own. This is because predictions concerned with the far future are highly uncertain and investors refuse to base current decisions on fuzzy "what ifs".

This is a problem because many current investments, such as the fight against global warming, are likely to yield results only decades hence. There is no effective method of cost/benefit analysis applicable to such time horizons.

How are consumer choices influenced by advertising and by pricing? No one seems to have a clear answer. Advertising is concerned with the dissemination of information. Yet it is also a signal sent to consumers that a

certain product is useful and qualitative and that the advertiser's stability, longevity, and profitability are secure. Advertising communicates a long term commitment to a winning product by a firm with deep pockets. This is why patrons react to the level of visual exposure to advertising - regardless of its content.

Humans may be too multi-dimensional and hyper-complex to be usefully captured by econometric models. These either lack predictive powers or lapse into logical fallacies, such as the "omitted variable bias" or "reverse causality". The former is concerned with important variables unaccounted for - the latter with reciprocal causation, when every cause is also caused by its own effect.

These are symptoms of an all-pervasive malaise. Economists are simply not sure what precisely constitutes their subject matter. Is economics about the construction and testing of models in accordance with certain basic assumptions? Or should it revolve around the mining of data for emerging patterns, rules, and "laws"?

On the one hand, patterns based on limited - or, worse, non-recurrent - sets of data form a questionable foundation for any kind of "science". On the other hand, models based on assumptions are also in doubt because they are bound to be replaced by new models with new, hopefully improved, assumptions.

One way around this apparent quagmire is to put human cognition (i.e., psychology) at the heart of economics. Assuming that being human is an immutable and knowable constant - it should be amenable to scientific treatment. "Prospect theory", "bounded rationality theories", and the study of "hindsight bias" as well as

other cognitive deficiencies are the outcomes of this approach.

To qualify as science, economic theory must satisfy the following cumulative conditions:

a. ***All-inclusiveness (anamnetic)*** – It must encompass, integrate, and incorporate all the facts known about economic behaviour.

b. ***Coherence*** – It must be chronological, structured and causal. It must explain, for instance, why a certain economic policy leads to specific economic outcomes - and why.

c. ***Consistency*** – It must be self-consistent. Its sub-"units" cannot contradict one another or go against the grain of the main "theory". It must also be consistent with the observed phenomena, both those related to economics and those pertaining to non-economic human behaviour. It must adequately cope with irrationality and cognitive deficits.

d. ***Logical compatibility*** – It must not violate the laws of its internal logic and the rules of logic "out there", in the real world.

e. ***Insightfulness*** – It must cast the familiar in a new light, mine patterns and rules from big bodies of data ("data mining"). Its insights must be the inevitable conclusion of the logic, the language, and the evolution of the theory.

f. ***Aesthetic*** – Economic theory must be both plausible and "right", beautiful (aesthetic), not cumbersome, not awkward, not discontinuous,

smooth, and so on.

g. ***Parsimony*** – The theory must employ a minimum number of assumptions and entities to explain the maximum number of observed economic behaviours.

h. ***Explanatory Powers*** – It must explain the behaviour of economic actors, their decisions, and why economic events develop the way they do.

i. ***Predictive (prognostic) Powers*** – Economic theory must be able to predict future economic events and trends as well as the future behaviour of economic actors.

j. ***Prescriptive Powers*** – The theory must yield policy prescriptions, much like physics yields technology. Economists must develop "economic technology" - a set of tools, blueprints, rules of thumb, and mechanisms with the power to change the " economic world".

k. ***Imposing*** – It must be regarded by society as the preferable and guiding organizing principle in the economic sphere of human behaviour.

l. ***Elasticity*** – Economic theory must possess the intrinsic abilities to self organize, reorganize, give room to emerging order, accommodate new data comfortably, and avoid rigid reactions to attacks from within and from without.

Many current economic theories do not meet these cumulative criteria and are, thus, merely glorified narratives.

But meeting the above conditions is not enough. Scientific theories must also pass the crucial hurdles of testability, verifiability, refutability, falsifiability, and repeatability. Yet, many economists go as far as to argue that no experiments can be designed to test the statements of economic theories.

It is difficult - perhaps impossible - to test hypotheses in economics for four reasons.

a. ***Ethical*** – Experiments would have to involve human subjects, ignorant of the reasons for the experiments and their aims. Sometimes even the very existence of an experiment will have to remain a secret (as with double blind experiments). Some experiments may involve unpleasant experiences. This is ethically unacceptable.

b. ***Design Problems*** - The design of experiments in economics is awkward and difficult. Mistakes are often inevitable, however careful and meticulous the designer of the experiment is.

c. ***The Psychological Uncertainty Principle*** – The current mental state of a human subject can be (theoretically) fully known. But the passage of time and, sometimes, the experiment itself, influence the subject and alter his or her mental state - a problem known in economic literature as "time inconsistencies". The very processes of measurement and observation influence the subject and change it.

d. ***Uniqueness*** – Experiments in economics, therefore, tend to be unique. They cannot be

repeated even when the SAME subjects are involved, simply because no human subject remains the same for long. Repeating the experiments with other subjects casts in doubt the scientific value of the results.

e. ***The undergeneration of testable hypotheses*** – Economic theories do not generate a sufficient number of hypotheses, which can be subjected to scientific testing. This has to do with the fabulous (i.e., storytelling) nature of the discipline.

In a way, economics has an affinity with some private languages. It is a form of art and, as such, it is self-sufficient and self-contained. If certain structural, internal constraints and requirements are met – a statement in economics is deemed to be true even if it does not satisfy external (scientific) requirements. Thus, the standard theory of utility is considered valid in economics despite overwhelming empirical evidence to the contrary - simply because it is aesthetic and mathematically convenient.

So, what are economic "theories" good for?

Economic "theories" and narratives offer an organizing principle, a sense of order, predictability, and justice. They postulate an inexorable drive toward greater welfare and utility (i.e., the idea of progress). They render our chaotic world meaningful and make us feel part of a larger whole. Economics strives to answer the "why's" and "how's" of our daily life. It is dialogic and prescriptive (i.e., provides behavioural prescriptions). In certain ways, it is akin to religion.

In its catechism, the believer (let's say, a politician) asks: "Why... (and here follows an economic problem or

behaviour)".

The economist answers:

"The situation is like this not because the world is whimsically cruel, irrational, and arbitrary - but because ... (and here follows a causal explanation based on an economic model). If you were to do this or that the situation is bound to improve".

The believer feels reassured by this explanation and by the explicit affirmation that there is hope providing he follows the prescriptions. His belief in the existence of linear order and justice administered by some supreme, transcendental principle is restored.

This sense of "law and order" is further enhanced when the theory yields predictions which come true, either because they are self-fulfilling or because some real "law", or pattern, has emerged. Alas, this happens rarely. As "The Economist" notes gloomily, economists have the most disheartening record of failed predictions - and prescriptions.

Empathy

"If I am a thinking being, I must regard life other than my own with equal reverence, for I shall know that it longs for fullness and development as deeply as I do myself. Therefore, I see that evil is what annihilates, hampers, or hinders life.. Goodness, by the same token, is the saving or helping of life, the enabling of whatever life I can to attain its highest development."

Albert Schweitzer, "Philosophy of Civilization," 1923

The ***Encyclopaedia Britannica (1999 edition)*** defines

empathy as:

"The ability to imagine oneself in anther's place and understand the other's feelings, desires, ideas, and actions. It is a term coined in the early 20th century, equivalent to the German Einfühlung and modelled on "sympathy." The term is used with special (but not exclusive) reference to aesthetic experience. The most obvious example, perhaps, is that of the actor or singer who genuinely feels the part he is performing. With other works of art, a spectator may, by a kind of introjection, feel himself involved in what he observes or contemplates. The use of empathy is an important part of the counselling technique developed by the American psychologist Carl Rogers."

Empathy is predicated upon and must, therefore, incorporate the following elements:

a. Imagination which is dependent on the ability to imagine;

b. The existence of an accessible Self (self-awareness or self-consciousness);

c. The existence of an available other (other-awareness, recognizing the outside world);

d. The existence of accessible feelings, desires, ideas and representations of actions or their outcomes both in the empathizing Self ("Empathor") and in the Other, the object of empathy ("Empathee");

e. The availability of an aesthetic frame of reference;

f. The availability of a moral frame of reference.

While (a) is presumed to be universally available to all agents (though in varying degrees) - the existence of the other components of empathy should not be taken for granted.

Conditions (b) and (c), for instance, are not satisfied by people who suffer from personality disorders, such as the Narcissistic Personality Disorder. Condition (d) is not met in autistic people (e.g., those who suffer from Asperger's Disorder). Condition (e) is so totally dependent on the specifics of the culture, period and society in which it exists - that it is rather meaningless and ambiguous as a yardstick. Condition (f) suffer from both afflictions: it is both culture-dependent AND is not satisfied in many people (such as those who suffer from the Antisocial Personality Disorder and who are devoid of any conscience or moral sense).

Thus, the very existence of empathy should be questioned. It is often confused with inter-subjectivity. The latter is defined thus by ***"The Oxford Companion to Philosophy, 1995"***:

"This term refers to the status of being somehow accessible to at least two (usually all, in principle) minds or 'subjectivities'. It thus implies that there is some sort of communication between those minds; which in turn implies that each communicating minds aware not only of the existence of the other but also of its intention to convey information to the other. The idea, for theorists, is that if subjective processes can be brought into agreement, then perhaps that is as good as the (unattainable?) status of being objective - completely independent of subjectivity. The question facing such theorists is whether intersubjectivity is definable without presupposing an objective environment in which

communication takes place (the 'wiring' from subject A to subject B). At a less fundamental level, however, the need for intersubjective verification of scientific hypotheses has been long recognized". (page 414).

On the face of it, the difference between intersubjectivity and empathy is double:

a. Intersubjectivity requires an EXPLICIT, communicated agreement between at least two subjects.

b. It involves EXTERNAL things (so called "objective" entities).

These "differences" are artificial. This is how empathy is defined in "Psychology - An Introduction (Ninth Edition) by Charles G. Morris, Prentice Hall, 1996":

"Closely related to the ability to read other people's emotions is empathy - the arousal of an emotion in an observer that is a vicarious response to the other person's situation... Empathy depends not only on one's ability to identify someone else's emotions but also on one's capacity to put oneself in the other person's place and to experience an appropriate emotional response. Just as sensitivity to non-verbal cues increases with age, so does empathy: The cognitive and perceptual abilities required for empathy develop only as a child matures... (page 442)

In empathy training, for example, each member of the couple is taught to share inner feelings and to listen to and understand the partner's feelings before responding to them. The empathy technique focuses the couple's attention on feelings and requires that they spend more time listening and less time in rebuttal." (page 576).

Thus empathy does require the communication of feelings AND an agreement on the appropriate outcome of the communicated emotions (=affective agreement). In the absence of such agreement, we are faced with inappropriate affect (laughing at a funeral, for instance).

Moreover, empathy does relate to external objects and is provoked by them. There is no empathy in the absence of an empathee. Granted, intersubjectivity is intuitively applied to the inanimate while empathy is applied to the living (animals, humans, even plants). But this is a difference in human preferences - not in definition.

Empathy can, thus, be re-defined as a form of intersubjectivity which involves living things as "objects" to which the communicated intersubjective agreement relates. It is wrong to limit our understanding of empathy to the communication of emotion. Rather, it is the intersubjective, concomitant experience of BEING. The empathor empathizes not only with the empathee's emotions but also with his physical state and other parameters of existence (pain, hunger, thirst, suffocation, sexual pleasure etc.).

This leads to the important (and perhaps intractable) psychophysical question.

Intersubjectivity relates to external objects but the subjects communicate and reach an agreement regarding the way THEY have been affected by the objects.

Empathy relates to external objects (Others) but the subjects communicate and reach an agreement regarding the way THEY would have felt had they BEEN the object.

This is no minor difference, if it, indeed, exists. But does it really exist?

What is it that we feel in empathy? Do we feel OUR emotions/sensations, provoked by an external trigger (classic intersubjectivity) or do we experience a TRANSFER of the object's feelings/sensations to us?

Such a transfer being physically impossible (as far as we know) - we are forced to adopt the former model. Empathy is the set of reactions - emotional and cognitive - to being triggered by an external object (the Other). It is the equivalent of resonance in the physical sciences. But we have NO WAY of ascertaining that the "wavelength" of such resonance is identical in both subjects.

In other words, we have no way to verify that the feelings or sensations invoked in the two (or more) subjects are the same. What I call "sadness" may not be what you call "sadness". Colours, for instance, have unique, uniform, independently measurable properties (their energy). Even so, no one can prove that what I see as "red" is what another person (perhaps a Daltonist) would call "red". If this is true where "objective", measurable, phenomena, like colors, are concerned - it is infinitely more true in the case of emotions or feelings.

We are, therefore, forced to refine our definition:

Empathy is a form of intersubjectivity which involves living things as "objects" to which the communicated intersubjective agreement relates. It is the intersubjective, concomitant experience of BEING. The empathor empathizes not only with the empathee's emotions but also with his physical state and other parameters of existence (pain, hunger, thirst, suffocation, sexual pleasure etc.).

BUT

The meaning attributed to the words used by the parties to the intersubjective agreement known as empathy is totally dependent upon each party. The same words are used, the same denotates - but it cannot be proven that the same connotates, the same experiences, emotions and sensations are being discussed or communicated.

Language (and, by extension, art and culture) serve to introduce us to other points of view ("what is it like to be someone else" to paraphrase Thomas Nagle). By providing a bridge between the subjective (inner experience) and the objective (words, images, sounds), language facilitates social exchange and interaction. It is a dictionary which translates one's subjective private language to the coin of the public medium. Knowledge and language are, thus, the ultimate social glue, though both are based on approximations and guesses (see George Steiner's "After Babel").

But, whereas the intersubjective agreement regarding measurements and observations concerning external objects IS verifiable or falsifiable using INDEPENDENT tools (e.g., lab experiments) - the intersubjective agreement which concerns itself with the emotions, sensations and experiences of subjects as communicated by them IS NOT verifiable or falsifiable using INDEPENDENT tools. The interpretation of this second kind of agreement is dependent upon introspection and an assumption that identical words used by different subjects still possess identical meaning. This assumption is not falsifiable (or verifiable). It is neither true nor false. It is a probabilistic statement, but without a probability distribution. It is, in short, a meaningless statement. As a result, empathy itself is meaningless.

In human-speak, if you say that you are sad and I

empathize with you it means that we have an agreement. I regard you as my object. You communicate to me a property of yours ("sadness"). This triggers in me a recollection of "what is sadness" or "what is to be sad". I say that I know what you mean, I have been sad before, I know what it is like to be sad. I empathize with you. We agree about being sad. We have an intersubjective agreement.

Alas, such an agreement is meaningless. We cannot (yet) measure sadness, quantify it, crystallize it, access it in any way from the outside. We are totally and absolutely reliant on your introspection and on my introspection. There is no way anyone can prove that my "sadness" is even remotely similar to your sadness. I may be feeling or experiencing something that you might find hilarious and not sad at all. Still, I call it "sadness" and I empathize with you.

This would not have been that grave if empathy hadn't been the cornerstone of morality.

The Encyclopaedia Britannica, 1999 Edition:

"Empathy and other forms of social awareness are important in the development of a moral sense. Morality embraces a person's beliefs about the appropriateness or goodness of what he does, thinks, or feels... Childhood is ... the time at which moral standards begin to develop in a process that often extends well into adulthood. The American psychologist Lawrence Kohlberg hypothesized that people's development of moral standards passes through stages that can be grouped into three moral levels...

At the third level, that of postconventional moral

reasoning, the adult bases his moral standards on principles that he himself has evaluated and that he accepts as inherently valid, regardless of society's opinion. He is aware of the arbitrary, subjective nature of social standards and rules, which he regards as relative rather than absolute in authority.

Thus the bases for justifying moral standards pass from avoidance of punishment to avoidance of adult disapproval and rejection to avoidance of internal guilt and self-recrimination. The person's moral reasoning also moves toward increasingly greater social scope (i.e., including more people and institutions) and greater abstraction (i.e., from reasoning about physical events such as pain or pleasure to reasoning about values, rights, and implicit contracts)."

But, if moral reasoning is based on introspection and empathy - it is, indeed, dangerously relative and not objective in any known sense of the word. Empathy is a unique agreement on the emotional and experiential content of two or more introspective processes in two or more subjective. Such an agreement can never have any meaning, even as far as the parties to it are concerned. They can never be sure that they are discussing the same emotions or experiences. There is no way to compare, measure, observe, falsify or verify (prove) that the "same" emotion is experienced identically by the parties to the empathy agreement. Empathy is meaningless and introspection involves a private language despite what Wittgenstein had to say. Morality is thus reduced to a set of meaningless private languages.

The ***Encyclopaedia Britannica***:

"... Others have argued that because even rather young

children are capable of showing empathy with the pain of others, the inhibition of aggressive behaviour arises from this moral affect rather than from the mere anticipation of punishment. Some scientists have found that children differ in their individual capacity for empathy, and, therefore, some children are more sensitive to moral prohibitions than others.

Young children's growing awareness of their own emotional states, characteristics, and abilities leads to empathy--i.e., the ability to appreciate the feelings and perspectives of others. Empathy and other forms of social awareness are in turn important in the development of a moral sense... Another important aspect of children's emotional development is the formation of their self-concept, or identity--i.e., their sense of who they are and what their relation to other people is.

According to Lipps's concept of empathy, a person appreciates another person's reaction by a projection of the self into the other. In his Ästhetik, 2 vol. (1903-06; 'Aesthetics'), he made all appreciation of art dependent upon a similar self-projection into the object."

This may well be the key. Empathy has little to do with the other person (the empathee). It is simply the result of conditioning and socialization. In other words, when we hurt someone - we don't experience his pain. We experience OUR pain. Hurting somebody - hurts US. The reaction of pain is provoked in US by OUR own actions. We have been taught a learned response of feeling pain when we inflict it upon another. But we have also been taught to feel responsible for our fellow beings (guilt). So, we experience pain whenever another person claims to experience it as well. We feel guilty.

In sum:

To use the example of pain, we experience it in tandem with another person because we feel guilty or somehow responsible for his condition. A learned reaction is activated and we experience (our kind of) pain as well. We communicate it to the other person and an agreement of empathy is struck between us.

We attribute feelings, sensations and experiences to the object of our actions. It is the psychological defence mechanism of projection. Unable to conceive of inflicting pain upon ourselves - we displace the source. It is the other's pain that we are feeling, we keep telling ourselves, not our own.

The ***Encyclopaedia Britannica***:

"Perhaps the most important aspect of children's emotional development is a growing awareness of their own emotional states and the ability to discern and interpret the emotions of others. The last half of the second year is a time when children start becoming aware of their own emotional states, characteristics, abilities, and potential for action; this phenomenon is called self-awareness... (coupled with strong narcissistic behaviours and traits - SV)...

This growing awareness of and ability to recall one's own emotional states leads to empathy, or the ability to appreciate the feelings and perceptions of others. Young children's dawning awareness of their own potential for action inspires them to try to direct (or otherwise affect) the behaviour of others...

...With age, children acquire the ability to understand the perspective, or point of view, of other people, a

development that is closely linked with the empathic sharing of others' emotions...

One major factor underlying these changes is the child's increasing cognitive sophistication. For example, in order to feel the emotion of guilt, a child must appreciate the fact that he could have inhibited a particular action of his that violated a moral standard. The awareness that one can impose a restraint on one's own behaviour requires a certain level of cognitive maturation, and, therefore, the emotion of guilt cannot appear until that competence is attained."

That empathy is a ***REACTION*** to external stimuli that is fully contained within the empathor and then projected onto the empathee is clearly demonstrated by "inborn empathy". It is the ability to exhibit empathy and altruistic behaviour in response to facial expressions. Newborns react this way to their mother's facial expression of sadness or distress.

This serves to prove that empathy has very little to do with the feelings, experiences or sensations of the other (the empathee). Surely, the infant has no idea what it is like to feel sad and definitely not what it is like for his mother to feel sad. In this case, it is a complex reflexive reaction. Later on, empathy is still rather reflexive, the result of conditioning.

The ***Encyclopaedia Britannica*** quotes fascinating research which dramatically proves the object-independent nature of empathy. Empathy is an internal reaction, an internal process, triggered by external cue provided by animate objects. It is communicated to the empathee-other by the empathor but the communication and the resulting agreement ("I know how you feel

therefore we agree on how you feel") is rendered meaningless by the absence of a monovalent, unambiguous dictionary.

"An extensive series of studies indicated that positive emotion feelings enhance empathy and altruism. It was shown by the American psychologist Alice M. Isen that relatively small favours or bits of good luck (like finding money in a coin telephone or getting an unexpected gift) induced positive emotion in people and that such emotion regularly increased the subjects' inclination to sympathize or provide help.

Several studies have demonstrated that positive emotion facilitates creative problem solving. One of these studies showed that positive emotion enabled subjects to name more uses for common objects. Another showed that positive emotion enhanced creative problem solving by enabling subjects to see relations among objects (and other people - SV) that would otherwise go unnoticed. A number of studies have demonstrated the beneficial effects of positive emotion on thinking, memory, and action in pre-school and older children."

If empathy increases with positive emotion (a result of good luck, for instance) - then it has little to do with its objects and a lot to do with the person in whom it is provoked.

ADDENDUM - Interview granted to the National Post, Toronto, Canada, July 2003

Q. How important is empathy to proper psychological functioning?

A. Empathy is more important socially than it is psychologically. The absence of empathy - for instance in

the Narcissistic and Antisocial personality disorders - predisposes people to exploit and abuse others. Empathy is the bedrock of our sense of morality. Arguably, aggressive behavior is as inhibited by empathy at least as much as it is by anticipated punishment.

But the existence of empathy in a person is also a sign of self-awareness, a healthy identity, a well-regulated sense of self-worth, and self-love (in the positive sense). Its absence denotes emotional and cognitive immaturity, an inability to love, to truly relate to others, to respect their boundaries and accept their needs, feelings, hopes, fears, choices, and preferences as autonomous entities.

Q. How is empathy developed?

A. It may be innate. Even toddlers seem to empathize with the pain - or happiness - of others (such as their caregivers). Empathy increases as the child forms a self-concept (identity). The more aware the infant is of his or her emotional states, the more he explores his limitations and capabilities - the more prone he is to projecting this new found knowledge unto others. By attributing to people around him his new gained insights about himself, the child develop a moral sense and inhibits his anti-social impulses. The development of empathy is, therefore, a part of the process of socialization.

But, as the American psychologist Carl Rogers taught us, empathy is also learned and inculcated. We are coached to feel guilt and pain when we inflict suffering on another person. Empathy is an attempt to avoid our own self-imposed agony by projecting it onto another.

Q. Is there an increasing dearth of empathy in society today? Why do you think so?

A. The social institutions that reified, propagated and administered empathy have imploded. The nuclear family, the closely-knit extended clan, the village, the neighborhood, the Church- have all unraveled. Society is atomized and anomic. The resulting alienation fostered a wave of antisocial behavior, both criminal and "legitimate". The survival value of empathy is on the decline. It is far wiser to be cunning, to cut corners, to deceive, and to abuse - than to be empathic. Empathy has largely dropped from the contemporary curriculum of socialization.

In a desperate attempt to cope with these inexorable processes, behaviors predicated on a lack of empathy have been pathologized and "medicalized". The sad truth is that narcissistic or antisocial conduct is both normative and rational. No amount of "diagnosis", "treatment", and medication can hide or reverse this fact. Ours is a cultural malaise which permeates every single cell and strand of the social fabric.

Q. Is there any empirical evidence we can point to of a decline in empathy?

Empathy cannot be measured directly - but only through proxies such as criminality, terrorism, charity, violence, antisocial behavior, related mental health disorders, or abuse.

Moreover, it is extremely difficult to separate the effects of deterrence from the effects of empathy.

If I don't batter my wife, torture animals, or steal - is it

because I am empathetic or because I don't want to go to jail?

Rising litigiousness, zero tolerance, and skyrocketing rates of incarceration - as well as the ageing of the population - have sliced intimate partner violence and other forms of crime across the United States in the last decade. But this benevolent decline had nothing to do with increasing empathy.

The statistics are open to interpretation but it would be safe to say that the last century has been the most violent and least empathetic in human history. Wars and terrorism are on the rise, charity giving on the wane (measured as percentage of national wealth), welfare policies are being abolished, Darwininan models of capitalism are spreading. In the last two decades, mental health disorders were added to the Diagnostic and Statistical Manual of the American Psychiatric Association whose hallmark is the lack of empathy. The violence is reflected in our popular culture: movies, video games, and the media.

Empathy - supposedly a spontaneous reaction to the plight of our fellow humans - is now channeled through self-interested and bloated non-government organizations or multilateral outfits. The vibrant world of private empathy has been replaced by faceless state largesse. Pity, mercy, the elation of giving are tax-deductible. It is a sorry sight.

Read about Empathy and Personality Disorders

Equality (Film Review of "Titanic")

The film "Titanic" is riddled with moral dilemmas. In one of the scenes, the owner of Star Line, the shipping company that owned the now-sinking Unsinkable, joins a

lowered life-boat. The tortured expression on his face demonstrates that even he experiences more than unease at his own conduct. Prior to the disaster, he instructs the captain to adopt a policy dangerous to the ship. Indeed, it proves fatal. A complicating factor was the fact that only women and children were allowed by the officers in charge into the lifeboats. Another was the discrimination against Third Class passengers. The boats sufficed only to half the number of those on board and the First Class, High Society passengers were preferred over the Low-Life immigrants under deck.

Why do we all feel that the owner should have stayed on and faced his inevitable death? Because we judge him responsible for the demise of the ship. Additionally, his wrong instructions – motivated by greed and the pursuit of celebrity – were a crucial contributing factor. The owner should have been punished (in his future) for things that he has done (in his past). This is intuitively appealing.

Would we have rendered the same judgement had the Titanic's fate been the outcome of accident and accident alone? If the owner of the ship could have had no control over the circumstances of its horrible ending – would we have still condemned him for saving his life? Less severely, perhaps. So, the fact that a moral entity has ACTED (or omitted, or refrained from acting) in its past is essential in dispensing with future rewards or punishments.

The "product liability" approach also fits here. The owner (and his "long arms": manufacturer, engineers, builders, etc.) of the Titanic were deemed responsible because they implicitly contracted with their passengers. They made a representation (which was explicit in their case but is implicit in most others): "This ship was constructed with

knowledge and forethought. The best design was employed to avoid danger. The best materials to increase pleasure." That the Titanic sank was an irreversible breach of this contract. In a way, it was an act of abrogation of duties and obligations. The owner/manufacturer of a product must compensate the consumers should his product harm them in any manner that they were not explicitly, clearly, visibly and repeatedly warned against. Moreover, he should even make amends if the product failed to meet the reasonable and justified expectations of consumers, based on such warrants and representations. The payment should be either in kind (as in more ancient justice systems) or in cash (as in modern Western civilization). The product called "Titanic" took away the lives of its end-users. Our "gut justice" tells us that the owner should have paid in kind. Faulty engineering, insufficient number of lifeboats, over-capacity, hubris, passengers and crew not drilled to face emergencies, extravagant claims regarding the ship's resilience, contravening the captain's professional judgement. All these seem to be sufficient grounds to the death penalty.

And yet, this is not the real question. The serious problem is this : WHY should anyone pay in his future for his actions in the past? First, there are some thorny issues to be eliminated. Such as determinism: if there is no free will, there can be no personal responsibility. Another is the preservation of personal identity: are the person who committed the act and the person who is made to pay for it – one and the same? If the answer is in the affirmative, in which sense are they the same, the physical, the mental? Is the "overlap" only limited and probabilistic? Still, we could assume, for this discussion's sake, that the personal identity is undeniably and absolutely preserved and that there is free will and, therefore, that people can

predict the outcomes of their actions, to a reasonable degree of accuracy and that they elect to accept these outcomes prior to the commission of their acts or to their omission. All this does not answer the question that opened this paragraph. Even if there were a contract signed between the acting person and the world, in which the person willingly, consciously and intelligently (=without diminished responsibility) accepted the future outcome of his acts, the questions would remain: WHY should it be so? Why cannot we conceive of a world in which acts and outcomes are divorced? It is because we cannot believe in an a-causal world.

Causality is a relationship (mostly between two things, or, rather, events, the cause and the effect). Something generates or produces another. Therefore, it is the other's efficient cause and it acts upon it (=it acts to bring it about) through the mechanism of efficient causation. A cause can be a direct physical mechanism or an explanatory feature (historical cause). Of Aristotle's Four Causes (Formal, Material, Efficient and Final), only the efficient cause creates something distinguishable from itself. The causal discourse, therefore, is problematic (how can a cause lead to an effect, indistinguishable from itself?). Singular Paradigmatic Causal Statements (Event A caused Event B) differ from General ones (Event A causes Event B). Both are inadequate in dealing with mundane, routine, causal statements because they do not reveal an OVERT relation between the two events discussed. Moreover, in daily usage we treat facts (as well as events) as causes. Not all the philosophers are in agreement regarding factual causation. Davidson, for instance, admits that facts can be RELEVANT to causal explanations but refuses to accept them AS reasons. Acts may be distinct from facts, philosophically, but not in day-

to-day regular usage. By laymen (the vast majority of humanity, that is), though, they are perceived to be the same.

Pairs of events that are each other's cause and effect are accorded a special status. But, that one follows the other (even if invariably) is insufficient grounds to endow them with this status. This is the famous "Post hoc, ergo propter hoc" fallacy. Other relations must be weighed and the possibility of common causation must be seriously contemplated. Such sequencing is, conceptually, not even necessary: simultaneous causation and backwards causation are part of modern physics, for instance. Time seems to be irrelevant to the status of events, though both time and causation share an asymmetric structure (A causes B but B does not cause A). The direction (the asymmetry) of the causal chain is not of the same type as the direction (asymmetry) of time. The former is formal, the latter, presumably, physical, or mental. A more serious problem, to my mind, is the converse: what sets apart causal (cause and effect) pairs of events from other pairs in which both member-events are the outcomes of a common cause? Event B can invariably follow Event A and still not be its effect. Both events could have been caused by a common cause. A cause either necessitates the effect, or is a sufficient condition for its occurrence. The sequence is either inevitable, or possible. The meaninglessness of this sentence is evident.

Here, philosophers diverge. Some say (following Hume's reasoning and his constant conjunction relation between events) that a necessary causal relation exists between events when one is the inevitable outcome (=follows) the other. Others propound a weaker version: the necessity of the effect is hypothetical or conditional, given the laws of

nature. Put differently: to say that A necessitates (=causes) B is no more than to say that it is a result of the laws of nature that when A happens, so does B. Hempel generalized this approach. He said that a statement of a fact (whether a private or a general fact) is explained only if deduced from other statements, at least one of which is a statement of a general scientific law. This is the "Covering Law Model" and it implies a symmetry between explaining and predicting (at least where private facts are concerned). If an event can be explained, it could have been predicted and vice versa. Needless to say that Hempel's approach did not get us nearer to solving the problems of causal priority and of indeterministic causation.

The Empiricists went a step further. They stipulated that the laws of nature are contingencies and not necessary truths. Other chains of events are possible where the laws of nature are different. This is the same tired regularity theory in a more exotic guise. They are all descendants of Hume's definition of causality: "An object followed by another and where all the objects that resemble the first are followed by objects that resemble the second." Nothing in the world is, therefore, a causal necessity, events are only constantly conjoined. Regularities in our experience condition us to form the idea of causal necessity and to deduce that causes must generate events. Kant called this latter deduction "A bastard of the imagination, impregnated by experience" with no legitimate application in the world. It also constituted a theological impediment. God is considered to be "Causa Sui", His own cause. But any application of a causal chain or force, already assumes the existence of a cause. This existence cannot, therefore, be the outcome of the use made of it. God had to be recast as the uncaused cause of

the existence of all things contingent and His existence necessitated no cause because He, himself, is necessary. This is flimsy stuff and it gets even flimsier when the issue of causal deviance is debated.

A causal deviance is an abnormal, though causal, relation between events or states of the world. It mainly arises when we introduce intentional action and perception into the theory of causation. Let us revert to the much-maligned owner of the sinking Titanic. He intended to do one thing and another happened. Granted, if he intended to do something and his intention was the cause of his doing so – then we could have said that he intentionally committed an act. But what if he intended to do one thing and out came another? And what if he intended to do something, mistakenly did something else and, still, accidentally, achieved what he set out to do? The popular example is if someone intends to do something and gets so nervous that it happens even without an act being committed (intends to refuse an invitation by his boss, gets so nervous that he falls asleep and misses the party). Are these actions and intentions in their classical senses? There is room for doubt. Davidson narrows down the demands. To him, "thinking causes" (causally efficient propositional attitudes) are nothing but causal relations between events with the right application of mental predicates which ascribe propositional attitudes supervening the right application of physical predicates. This approach omits intention altogether, not to mention the ascription of desire and belief.

But shouldn't have the hapless owner availed his precious place to women and children? Should not he have obeyed the captain's orders (=the marine law)? Should we succumb to laws that put our lives at risk (fight in a war,

sink with a ship)? The reason that women and children are preferred over men is that they represent the future. They are either capable of bringing life to the world (women) – or of living longer (children). Societal etiquette reflects the arithmetic of the species, in this (and in many another) case. But if this were entirely and exclusively so, then young girls and female infants would have been preferred over all the other groups of passengers. Old women would have been left with the men, to die. That the actual (and declared) selection processes differed from our theoretical exercise says a lot about the vigorousness and applicability of our theories – and a lot about the real world out there. The owner's behaviour may have been deplorable – but it, definitely, was natural. He put his interests (his survival) above the concerns of his society and his species. Most of us would have done the same under the same circumstances.

The owner of the ship – though "Newly Rich" – undoubtedly belonged to the First Class, Upper Crust, Cream of Society passengers. These were treated to the lifeboats before the passengers of the lower classes and decks. Was this a morally right decision? For sure, it was not politically correct, in today's terms. Class and money distinctions were formally abolished three decades ago in the enlightened West. Discrimination between human beings in now allowed only on the basis of merit (=on the basis of one's natural endowments). Why should we think one basis for discrimination preferable to another? Can we eliminate discrimination completely and if it were possible, would it have been desirable?

The answers, in my view, are that no basis of discrimination can hold the moral high ground. They are all morally problematic because they are deterministic and

assign independent, objective, exogenous values to humans. On the other hand, we are not born equal, nor do we proceed to develop equally, or live under the same circumstances and conditions. It is impossible to equate the unequal. Discrimination is not imposed by humans on an otherwise egalitarian world. It is introduced by the world into human society. And the elimination of discrimination would constitute a grave error. The inequalities among humans and the ensuing conflicts are the fuel that feeds the engines of human development. Hopes, desires, aspirations and inspiration are all the derivatives of discrimination or of the wish to be favoured, or preferred over others. Disparities of money create markets, labour, property, planning, wealth and capital. Mental inequalities lead to innovation and theory. Knowledge differentials are at the heart of educational institutions, professionalism, government and so on. Osmotic and diffusive forces in human society are all the results of incongruences, disparities, differences, inequalities and the negative and positive emotions attached to them. The passengers of the first class were preferred because they paid more for their tickets. Inevitably, a tacit portion of the price went to amortize the costs of "class insurance": should anything bad happen to this boat, persons who paid a superior price will be entitled to receive a superior treatment. There is nothing morally wrong with this. Some people get to sit in the front rows of a theatre, or to travel in luxury, or to receive superior medical treatment (or any medical treatment) precisely because of this reason. There is no practical or philosophical difference between an expensive liver transplant and a place in a life boat. Both are lifesavers. A natural disaster is no Great Equalizer. Nothing is. Even the argument that money is "external" or "accidental" to the rich individual is weak. Often, people who marry for

money considerations are judged to be insincere or worse (cunning, conspiring, evil). "He married her for her money", we say, as though the she-owner and the money were two separate things. The equivalent sentence: "He married her for her youth or for her beauty" sounds flawed. But youth and beauty are more temporary and transient than money. They are really accidental because the individual has no responsibility for or share in their generation and has no possibility to effect their long-term preservation. Money, on the other hand, is generated or preserved (or both) owing to the personality of its owner. It is a better reflection of personality than youth, beauty and many other (transient or situation-dependent) "character" traits. Money is an integral part of its owner and a reliable witness as to his mental disposition. It is, therefore, a valid criterion for discrimination.

The other argument in favour of favouring the first class passengers is their contribution to society. A rich person contributes more to his society in the shorter and medium term than a poor person. Vincent Van Gogh may have been a million times more valuable to humanity, as a whole, than his brother Theo – in the long run. But in the intermediate term, Theo made it possible for Vincent and many others (family, employees, suppliers, their dependants and his country) to survive by virtue of his wealth. Rich people feed and cloth poor people directly (employment, donations) and indirectly (taxation). The opposite, alas, is not the case. Yet, this argument is flawed because it does not take time into account. We have no way to predict the future with any certainty. Each person carries the Marshall's baton in his bag, the painter's brush, the author's fables. It is the potential that should count. A selection process, which would have preferred Theo to Vincent would have been erroneous. In the long run,

Vincent proved more beneficial to human society and in more ways – including financially – then Theo could have ever been.

Euthanasia

I. Definitions of Types of Euthanasia

Euthanasia, whether in a medical setting (hospital, clinic, hospice) or not (at home) is often erroneously described as "mercy killing". Most forms of euthanasia are, indeed, motivated by (some say: misplaced) mercy. Not so others. In Greek, "eu" means both "well" and "easy" and "Thanatos" is death.

Euthanasia is the intentional premature termination of another person's life either by direct intervention (***active euthanasia***) or by withholding life-prolonging measures and resources (***passive euthanasia***), either at the express or implied request of that person (***voluntary euthanasia***), or in the absence of such approval (***non-voluntary euthanasia***). ***Involuntary euthanasia*** - where the individual wishes to go on living - is an euphemism for ***murder***.

To my mind, passive euthanasia is immoral. The abrupt withdrawal of medical treatment, feeding, and hydration results in a slow and (potentially) torturous death. It took Terri Schiavo 13 days to die, when her tubes were withdrawn in the last two weeks of March 2005. Since it is impossible to conclusively prove that patients in PVS (Persistent Vegetative State) do not suffer pain, it is morally wrong to subject them to such potential gratuitous suffering. Even animals should be treated better. Moreover, passive euthanasia allows us to evade personal responsibility for the patient's death. In active euthanasia, the relationship between the act (of administering a lethal

medication, for instance) and its consequences is direct and unambiguous.

As the philosopher John Finnis notes, to qualify as euthanasia, the termination of life has to be the main and intended aim of the act or omission that lead to it. If the loss of life is incidental (a side effect), the agent is still morally responsible but to describe his actions and omissions as euthanasia would be misleading. Volntariness (accepting the foreseen but unintended consequences of one's actions and omissions) should be distinguished from intention.

Still, this sophistry obscures the main issue:

If the sanctity of life is a supreme and overriding value ("basic good"), it ought to surely preclude and proscribe all acts and omissions which may shorten it, even when the shortening of life is a mere deleterious side effect.

But this is not the case. The sanctity and value of life compete with a host of other equally potent moral demands. Even the most devout pro-life ethicist accepts that certain medical decisions - for instance, to administer strong analgesics - inevitably truncate the patient's life. Yet, this is considered moral because the resulting euthanasia is not the main intention of the pain-relieving doctor.

Moreover, the apparent dilemma between the two values (reduce suffering or preserve life) is non-existent.

There are four possible situations. Imagine a patient writhing with insufferable pain.

1. The patient's life is not at risk if she is not medicated with painkillers (she risks dying if she is medicated)

2. The patient's life is not at risk either way, medicated or not

3. The patient's life is at risk either way, medicated or not

4. The patient's life is at risk if she is not medicated with painkillers

In all four cases, the decisions our doctor has to make are ethically clear cut. He should administer pain-alleviating drugs, except when the patient risks dying (in 1 above). The (possible) shortening of the patient's life (which is guesswork, at best) is immaterial.

Conclusions:

It is easy to distinguish euthanasia from all other forms of termination of life. Voluntary active euthanasia is morally defensible, at least in principle (see below). Not so other types of euthanasia.

II. Who is or Should Be Subject to Euthanasia? The Problem of Dualism vs. Reductionism

With the exception of radical animal rights activists, most philosophers and laymen consider people - human beings - to be entitled to "special treatment", to be in possession of unique rights (and commensurate obligations), and to be capable of feats unparalleled in other species.

Thus, opponents of euthanasia universally oppose the killing of "persons". As the (pro-euthanasia) philosopher John Harris puts it:

" ... concern for their welfare, respect for their wishes, respect for the intrinsic value of their lives and respect for their interests."

Ronald Dworkin emphasizes the investments - made by nature, the person involved, and others - which euthanasia wastes. But he also draws attention to the person's "critical interests" - the interests whose satisfaction makes life better to live. The manner of one's own death may be such a critical interest. Hence, one should have the right to choose how one dies because the "right kind" of death (e.g., painless, quick, dignified) reflects on one's entire life, affirms and improves it.

But who is a person? What makes us human? Many things, most of which are irrelevant to our discussion.

Broadly speaking, though, there are two schools of thought:

(i) That we are rendered human by the very event of our conception (egg meets sperm), or, at the latest, our birth; or

(ii) That we are considered human only when we act and think as conscious humans do.

The proponents of the first case (i) claim that merely possessing a human body (or the potential to come to possess such a body) is enough to qualify us as "persons". There is no distinction between mind and abode - thought, feelings, and actions are merely manifestations of one underlying unity. The fact that some of these manifestations have yet to materialize (in the case of an embryo) or are mere potentials (in the case of a comatose patient) does not detract from our essential, incontrovertible, and indivisible humanity. We may be immature or damaged persons - but we are persons all the same (and always will be persons).

Though considered "religious" and "spiritual", this notion

is actually a form of reductionism. The mind, "soul", and "spirit" are mere expressions of one unity, grounded in our "hardware" - in our bodies.

Those who argue the second case (ii) postulate that it is possible to have a human body which does not host a person. People in Persistent Vegetative States, for instance - or fetuses, for that matter - are human but also non-persons. This is because they do not yet - or are unable to - exercise their faculties. Personhood is complexity. When the latter ceases, so does the former. Personhood is acquired and is an extensive parameter, a total, defining state of being. One is either awake or asleep, either dead or alive, either in a state of personhood or not

The latter approach involves fine distinctions between potential, capacity, and skill. A human body (or fertilized egg) have the potential to think, write poetry, feel pain, and value life. At the right phase of somatic development, this potential becomes capacity and, once it is competently exercised - it is a skill.

Embryos and comatose people may have the potential to do and think - but, in the absence of capacities and skills, they are not full-fledged persons. Indeed, in all important respects, they are already dead.

Taken to its logical conclusion, this definition of a person also excludes newborn infants, the severely retarded, the hopelessly quadriplegic, and the catatonic. "Who is a person" becomes a matter of culturally-bound and medically-informed judgment which may be influenced by both ignorance and fashion and, thus, be arbitrary and immoral.

Imagine a computer infected by a computer virus which

cannot be quarantined, deleted, or fixed. The virus disables the host and renders it "dead". Is it still a computer? If someone broke into my house and stole it, can I file an insurance claim? If a colleague destroys it, can I sue her for the damages? The answer is yes. A computer is a computer for as long as it exists physically and a cure is bound to be found even against the most trenchant virus.

Conclusions:

The definition of personhood must rely on objective, determinate and determinable criteria. The anti-euthanasia camp relies on bodily existence as one such criterion. The pro-euthanasia faction has yet to reciprocate.

III. Euthanasia and Suicide

Self-sacrifice, avoidable martyrdom, engaging in life risking activities, refusal to prolong one's life through medical treatment, euthanasia, overdosing, and self-destruction that is the result of coercion - are all closely related to suicide. They all involve a deliberately self-inflicted death.

But while suicide is chiefly intended to terminate a life – the other acts are aimed at perpetuating, strengthening, and defending values or other people. Many - not only religious people - are appalled by the choice implied in suicide - of death over life. They feel that it demeans life and abnegates its meaning.

Life's meaning - the outcome of active selection by the individual - is either external (such as "God's plan") or internal, the outcome of an arbitrary frame of reference, such as having a career goal. Our life is rendered meaningful only by integrating into an eternal thing,

process, design, or being. Suicide makes life trivial because the act is not natural - not part of the eternal framework, the undying process, the timeless cycle of birth and death. Suicide is a break with eternity.

Henry Sidgwick said that only conscious (i.e., intelligent) beings can appreciate values and meanings. So, life is significant to conscious, intelligent, though finite, beings - because it is a part of some eternal goal, plan, process, thing, design, or being. Suicide flies in the face of Sidgwick's dictum. It is a statement by an intelligent and conscious being about the meaninglessness of life.

If suicide is a statement, than society, in this case, is against the freedom of expression. In the case of suicide, free speech dissonantly clashes with the sanctity of a meaningful life. To rid itself of the anxiety brought on by this conflict, society cast suicide as a depraved or even criminal act and its perpetrators are much castigated.

The suicide violates not only the social contract but, many will add, covenants with God or nature. St. Thomas Aquinas wrote in the "Summa Theologiae" that - since organisms strive to survive - suicide is an unnatural act. Moreover, it adversely affects the community and violates the property rights of God, the imputed owner of one's spirit. Christianity regards the immortal soul as a gift and, in Jewish writings, it is a deposit. Suicide amounts to the abuse or misuse of God's possessions, temporarily lodged in a corporeal mansion.

This paternalism was propagated, centuries later, by Sir William Blackstone, the codifier of British Law. Suicide - being self-murder - is a grave felony, which the state has a right to prevent and to punish for. In certain countries this still is the case. In Israel, for instance, a soldier is

considered to be "military property" and an attempted suicide is severely punished as "the corruption of an army chattel".

Paternalism, a malignant mutation of benevolence, is about objectifying people and treating them as possessions. Even fully-informed and consenting adults are not granted full, unmitigated autonomy, freedom, and privacy. This tends to breed "victimless crimes". The "culprits" - gamblers, homosexuals, communists, suicides, drug addicts, alcoholics, prostitutes – are "protected from themselves" by an intrusive nanny state.

The possession of a right by a person imposes on others a corresponding obligation not to act to frustrate its exercise. Suicide is often the choice of a mentally and legally competent adult. Life is such a basic and deep set phenomenon that even the incompetents - the mentally retarded or mentally insane or minors - can fully gauge its significance and make "informed" decisions, in my view.

The paternalists claim counterfactually that no competent adult "in his right mind" will ever decide to commit suicide. They cite the cases of suicides who survived and felt very happy that they have - as a compelling reason to intervene. But we all make irreversible decisions for which, sometimes, we are sorry. It gives no one the right to interfere.

Paternalism is a slippery slope. Should the state be allowed to prevent the birth of a genetically defective child or forbid his parents to marry in the first place? Should unhealthy adults be forced to abstain from smoking, or steer clear from alcohol? Should they be coerced to exercise?

Suicide is subject to a double moral standard. People are permitted - nay, encouraged - to sacrifice their life only in certain, socially sanctioned, ways. To die on the battlefield or in defense of one's religion is commendable. This hypocrisy reveals how power structures - the state, institutional religion, political parties, national movements - aim to monopolize the lives of citizens and adherents to do with as they see fit. Suicide threatens this monopoly. Hence the taboo.

Does one have a right to take one's life?

The answer is: it depends. Certain cultures and societies encourage suicide. Both Japanese kamikaze and Jewish martyrs were extolled for their suicidal actions. Certain professions are knowingly life-threatening - soldiers, firemen, policemen. Certain industries - like the manufacture of armaments, cigarettes, and alcohol - boost overall mortality rates.

In general, suicide is commended when it serves social ends, enhances the cohesion of the group, upholds its values, multiplies its wealth, or defends it from external and internal threats. Social structures and human collectives - empires, countries, firms, bands, institutions - often commit suicide. This is considered to be a healthy process.

More about suicide, the meaning of life, and related considerations - ***HERE.***

Back to our central dilemma:

Is it morally justified to commit suicide in order to avoid certain, forthcoming, unavoidable, and unrelenting torture, pain, or coma?

Is it morally justified to ask others to help you to commit suicide (for instance, if you are incapacitated)?

Imagine a society that venerates life-with-dignity by making euthanasia mandatory (Trollope's Britannula in "The Fixed Period") - would it then and there be morally justified to ***refuse*** to commit suicide or to help in it?

Conclusions:

Though legal in many countries, suicide is still frowned upon, except when it amounts to socially-sanctioned self-sacrifice.

Assisted suicide is both condemned and illegal in most parts of the world. This is logically inconsistent but reflects society's fear of a "slippery slope" which may lead from assisted suicide to murder.

IV. Euthanasia and Murder

Imagine killing someone before we have ascertained her preferences as to the manner of her death and whether she wants to die at all. This constitutes murder even if, after the fact, we can prove conclusively that the victim wanted to die.

Is murder, therefore, merely the act of taking life, regardless of circumstances - or is it the nature of the interpersonal interaction that counts? If the latter, the victim's will counts - if the former, it is irrelevant.

V. Euthanasia, the Value of Life, and the Right to Life

Few philosophers, legislators, and laymen support non-voluntary or involuntary euthanasia. These types of "mercy" killing are associated with the most heinous

crimes against humanity committed by the Nazi regime on both its own people and other nations. They are and were also an integral part of every program of active eugenics.

The arguments against killing someone who hasn't expressed a wish to die (let alone someone who has expressed a desire to go on living) revolve around the right to life. People are assumed to value their life, cherish it, and protect it. Euthanasia - especially the non-voluntary forms - amounts to depriving someone (as well as their nearest and dearest) of something they value.

The right to life - at least as far as human beings are concerned - is a rarely questioned fundamental moral principle. In Western cultures, it is assumed to be inalienable and indivisible (i.e., monolithic). Yet, it is neither. Even if we accept the axiomatic - and therefore arbitrary - source of this right, we are still faced with intractable dilemmas. All said, the right to life may be nothing more than a cultural construct, dependent on social mores, historical contexts, and exegetic systems.

Rights - whether moral or legal - impose obligations or duties on third parties towards the right-holder. One has a right ***AGAINST*** other people and thus can prescribe to them certain obligatory behaviors and proscribe certain acts or omissions. Rights and duties are two sides of the same Janus-like ethical coin.

This duality confuses people. They often erroneously identify rights with their attendant duties or obligations, with the morally decent, or even with the morally permissible. One's rights inform other people how they ***MUST*** behave towards one - not how they ***SHOULD*** or ***OUGHT*** to act morally. Moral behavior is not dependent on the existence of a right. Obligations are.

To complicate matters further, many apparently simple and straightforward rights are amalgams of more basic moral or legal principles. To treat such rights as unities is to mistreat them.

Take the right to life. It is a compendium of no less than eight distinct rights: the right to be brought to life, the right to be born, the right to have one's life maintained, the right not to be killed, the right to have one's life saved, the right to save one's life (wrongly reduced to the right to self-defence), the right to terminate one's life, and the right to have one's life terminated.

None of these rights is self-evident, or unambiguous, or universal, or immutable, or automatically applicable. It is safe to say, therefore, that these rights are not primary as hitherto believed - but derivative.

Go HERE to learn more about the Right to Life.

Of the eight strands comprising the right to life, we are concerned with a mere two.

The Right to Have One's Life Maintained

This leads to a more general quandary. To what extent can one use other people's bodies, their property, their time, their resources and to deprive them of pleasure, comfort, material possessions, income, or any other thing - in order to maintain one's life?

Even if it were possible in reality, it is indefensible to maintain that I have a right to sustain, improve, or prolong my life at another's expense. I cannot demand - though I can morally expect - even a trivial and minimal sacrifice from another in order to prolong my life. I have no right to do so.

Of course, the existence of an implicit, let alone explicit, contract between myself and another party would change the picture. The right to demand sacrifices commensurate with the provisions of the contract would then crystallize and create corresponding duties and obligations.

No embryo has a right to sustain its life, maintain, or prolong it at its mother's expense. This is true regardless of how insignificant the sacrifice required of her is.

Yet, by knowingly and intentionally conceiving the embryo, the mother can be said to have signed a contract with it. The contract causes the right of the embryo to demand such sacrifices from his mother to crystallize. It also creates corresponding duties and obligations of the mother towards her embryo.

We often find ourselves in a situation where we do not have a given right against other individuals - but we do possess this very same right against society. Society owes us what no constituent-individual does.

Thus, we all have a right to sustain our lives, maintain, prolong, or even improve them at society's expense - no matter how major and significant the resources required. Public hospitals, state pension schemes, and police forces may be needed in order to fulfill society's obligations to prolong, maintain, and improve our lives - but fulfill them it must.

Still, each one of us can sign a contract with society - implicitly or explicitly - and abrogate this right. One can volunteer to join the army. Such an act constitutes a contract in which the individual assumes the duty or obligation to give up his or her life.

The Right not to be Killed

It is commonly agreed that every person has the right not to be killed unjustly. Admittedly, what is just and what is unjust is determined by an ethical calculus or a social contract - both constantly in flux.

Still, even if we assume an Archimedean immutable point of moral reference - does A's right not to be killed mean that third parties are to refrain from enforcing the rights of other people against A? What if the only way to right wrongs committed by A against others - was to kill A? The moral obligation to right wrongs is about restoring the rights of the wronged.

If the continued existence of A is predicated on the repeated and continuous violation of the rights of others - and these other people object to it - then A must be killed if that is the only way to right the wrong and re-assert the rights of A's victims.

The Right to have One's Life Saved

There is no such right because there is no moral obligation or duty to save a life. That people believe otherwise demonstrates the muddle between the morally commendable, desirable, and decent ("ought", "should") and the morally obligatory, the result of other people's rights ("must"). In some countries, the obligation to save a life is codified in the law of the land. But legal rights and obligations do not always correspond to moral rights and obligations, or give rise to them.

VI. Euthanasia and Personal Autonomy

The right to have one's life terminated at will (euthanasia), is subject to social, ethical, and legal strictures. In some countries - such as the Netherlands - it is legal (and socially acceptable) to have one's life terminated with the

help of third parties given a sufficient deterioration in the quality of life and given the imminence of death. One has to be of sound mind and will one's death knowingly, intentionally, repeatedly, and forcefully.

Should we have a right to die (given hopeless medical circumstances)? When our wish to end it all conflicts with society's (admittedly, paternalistic) judgment of what is right and what is good for us and for others - what should prevail?

One the one hand, as Patrick Henry put it, "give me liberty or give me death". A life without personal autonomy and without the freedom to make unpopular and non-conformist decisions is, arguably, not worth living at all!

As Dworkin states:

"Making someone die in a way that others approve, but he believes a horrifying contradiction of his life, is a devastating, odious form of tyranny".

Still, even the victim's express wishes may prove to be transient and circumstantial (due to depression, misinformation, or clouded judgment). Can we regard them as immutable and invariable? Moreover, what if the circumstances prove everyone - the victim included - wrong? What if a cure to the victim's disease is found ten minutes after the euthanasia?

Conclusions:

Personal autonomy is an important value in conflict with other, equally important values. Hence the debate about euthanasia. The problem is intractable and insoluble. No moral calculus (itself based implicitly or explicitly on a

hierarchy of values) can tell us which value overrides another and what are the true basic goods.

VII. Euthanasia and Society

It is commonly accepted that where two equally potent values clash, society steps in as an arbiter. The right to material welfare (food, shelter, basic possessions) often conflicts with the right to own private property and to benefit from it. Society strikes a fine balance by, on the one hand, taking from the rich and giving to the poor (through redistributive taxation) and, on the other hand, prohibiting and punishing theft and looting.

Euthanasia involves a few such finely-balanced values: the sanctity of life vs. personal autonomy, the welfare of the many vs. the welfare of the individual, the relief of pain vs. the prolongation and preservation of life.

Why can't society step in as arbiter in these cases as well?

Moreover, what if a person is rendered incapable of expressing his preferences with regards to the manner and timing of his death - should society step in (through the agency of his family or through the courts or legislature) and make the decision for him?

In a variety of legal situations, parents, court-appointed guardians, custodians, and conservators act for, on behalf of, and in lieu of underage children, the physically and mentally challenged and the disabled. Why not here?

We must distinguish between four situations:

1. The patient foresaw the circumstances and provided an advance directive (living will), asking explicitly for his life to be terminated when certain conditions are met.

2. The patient did not provide an advanced directive but expressed his preference clearly before he was incapacitated. The risk here is that self-interested family members may lie.

3. The patient did not provide an advance directive and did not express his preference aloud - but the decision to terminate his life is commensurate with both his character and with other decisions he made.

4. There is no indication, however indirect, that the patient wishes or would have wished to die had he been capable of expression but the patient is no longer a "person" and, therefore, has no interests to respect, observe, and protect. Moreover, the patient is a burden to himself, to his nearest and dearest, and to society at large. Euthanasia is the right, just, and most efficient thing to do.

Conclusions:

Society can (and often does) legalize euthanasia in the first case and, subject to rigorous fact checking, in the second and third cases. To prevent economically-motivated murder disguised as euthanasia, non-voluntary and involuntary euthanasia (as set in the forth case above) should be banned outright.

VIII. Slippery Slope Arguments

Issues in the Calculus of Rights - The Hierarchy of Rights

The right to life supersedes - in Western moral and legal systems - all other rights. It overrules the right to one's body, to comfort, to the avoidance of pain, or to ownership of property. Given such lack of equivocation, the amount of dilemmas and controversies surrounding

the right to life is, therefore, surprising.

When there is a clash between equally potent rights - for instance, the conflicting rights to life of two people - we can decide among them randomly (by flipping a coin, or casting dice). Alternatively, we can add and subtract rights in a somewhat macabre arithmetic.

Thus, if the continued life of an embryo or a fetus threatens the mother's life - that is, assuming, controversially, that both of them have an equal right to life - we can decide to kill the fetus. By adding to the mother's right to life her right to her own body we outweigh the fetus' right to life.

The Difference between Killing and Letting Die

Counterintuitively, there is a moral gulf between killing (taking a life) and letting die (not saving a life). The right not to be killed is undisputed. There is no right to have one's own life saved. Where there is a right - and only where there is one - there is an obligation. Thus, while there is an obligation not to kill - there is no obligation to save a life.

Anti-euthanasia ethicists fear that allowing one kind of euthanasia - even under the strictest and explicit conditions - will open the floodgates. The value of life will be depreciated and made subordinate to considerations of economic efficacy and personal convenience. Murders, disguised as acts of euthanasia, will proliferate and none of us will be safe once we reach old age or become disabled.

Years of legally-sanctioned euthanasia in the Netherlands, parts of Australia, and a state or two in the United States (living wills have been accepted and complied with

throughout the Western world for a well over a decade now) tend to fly in the face of such fears. Doctors did not regard these shifts in public opinion and legislative climate as a blanket license to kill their charges. Family members proved to be far less bloodthirsty and avaricious than feared.

Conclusions:

As long as non-voluntary and involuntary types of euthanasia are treated as felonies, it seems safe to allow patients to exercise their personal autonomy and grant them the right to die. Legalizing the institution of "advance directive" will go a long way towards regulating the field - as would a new code of medical ethics that will recognize and embrace reality: doctors, patients, and family members collude in their millions to commit numerous acts and omissions of euthanasia every day. It is their way of restoring dignity to the shattered lives and bodies of loved ones.

Evil (and Narcissism)

In his bestselling "People of the Lie", Scott Peck claims that narcissists are evil. Are they?

The concept of "evil" in this age of moral relativism is slippery and ambiguous. The "Oxford Companion to Philosophy" (Oxford University Press, 1995) defines it thus: ***"The suffering which results from morally wrong human choices."***

To qualify as evil a person (Moral Agent) must meet these requirements:

a. That he can and does consciously choose between the (morally) right and wrong and constantly and

consistently prefers the latter;

b. That he acts on his choice irrespective of the consequences to himself and to others.

Clearly, evil must be premeditated. Francis Hutcheson and Joseph Butler argued that evil is a by-product of the pursuit of one's interest or cause at the expense of other people's interests or causes. But this ignores the critical element of conscious choice among equally efficacious alternatives. Moreover, people often pursue evil even when it jeopardizes their well-being and obstructs their interests. Sadomasochists even relish this orgy of mutual assured destruction.

Narcissists satisfy both conditions only partly. Their evil is utilitarian. They are evil only when being malevolent secures a certain outcome. Sometimes, they consciously choose the morally wrong – but not invariably so. They act on their choice even if it inflicts misery and pain on others. But they never opt for evil if they are to bear the consequences. They act maliciously because it is expedient to do so – not because it is "in their nature".

The narcissist is able to tell right from wrong and to distinguish between good and evil. In the pursuit of his interests and causes, he sometimes chooses to act wickedly. Lacking empathy, the narcissist is rarely remorseful. Because he feels entitled, exploiting others is second nature. The narcissist abuses others absent-mindedly, off-handedly, as a matter of fact.

The narcissist objectifies people and treats them as expendable commodities to be discarded after use. Admittedly, that, in itself, is evil. Yet, it is the mechanical, thoughtless, heartless face of narcissistic abuse – devoid

of human passions and of familiar emotions – that renders it so alien, so frightful and so repellent.

We are often shocked less by the actions of narcissist than by the way he acts. In the absence of a vocabulary rich enough to capture the subtle hues and gradations of the spectrum of narcissistic depravity, we default to habitual adjectives such as "good" and "evil". Such intellectual laziness does this pernicious phenomenon and its victims little justice.

Read Ann's response:
http://www.narcissisticabuse.com/evil.html

Note - Why are we Fascinated by Evil and Evildoers?

The common explanation is that one is fascinated with evil and evildoers because, through them, one vicariously expresses the repressed, dark, and evil parts of one's own personality. Evildoers, according to this theory, represent the "shadow" nether lands of our selves and, thus, they constitute our antisocial alter egos. Being drawn to wickedness is an act of rebellion against social strictures and the crippling bondage that is modern life. It is a mock synthesis of our Dr. Jekyll with our Mr. Hyde. It is a cathartic exorcism of our inner demons.

Yet, even a cursory examination of this account reveals its flaws.

Far from being taken as a familiar, though suppressed, element of our psyche, evil is mysterious. Though preponderant, villains are often labeled "monsters" - abnormal, even supernatural aberrations. It took Hanna Arendt two thickset tomes to remind us that evil is banal and bureaucratic, not fiendish and omnipotent.

In our minds, evil and magic are intertwined. Sinners seem to be in contact with some alternative reality where the laws of Man are suspended. Sadism, however deplorable, is also admirable because it is the reserve of Nietzsche's Supermen, an indicator of personal strength and resilience. A heart of stone lasts longer than its carnal counterpart.

Throughout human history, ferocity, mercilessness, and lack of empathy were extolled as virtues and enshrined in social institutions such as the army and the courts. The doctrine of Social Darwinism and the advent of moral relativism and deconstruction did away with ethical absolutism. The thick line between right and wrong thinned and blurred and, sometimes, vanished.

Evil nowadays is merely another form of entertainment, a species of pornography, a sanguineous art. Evildoers enliven our gossip, color our drab routines and extract us from dreary existence and its depressive correlates. It is a little like collective self-injury. Self-mutilators report that parting their flesh with razor blades makes them feel alive and reawakened. In this synthetic universe of ours, evil and gore permit us to get in touch with real, raw, painful life.

The higher our desensitized threshold of arousal, the more profound the evil that fascinates us. Like the stimuli-addicts that we are, we increase the dosage and consume added tales of malevolence and sinfulness and immorality. Thus, in the role of spectators, we safely maintain our sense of moral supremacy and self-righteousness even as we wallow in the minutest details of the vilest crimes.

Existence

Knives and forks are objects external to us. They have an

objective - or at least an intersubjective - existence. Presumably, they will be there even if no one watches or uses them ever again. We can safely call them "Objective Entities".

Our emotions and thoughts can be communicated - but they are ***NOT*** the communication itself or its contents. They are "Subjective Entities", internal, dependent upon our existence as observers.

But what about numbers? The number one, for instance, has no objective, observer-independent status. I am not referring to the number one as adjective, as in "one apple". I am referring to it as a stand-alone entity. As an entity it seems to stand alone in some way (it's out there), yet be subjective in other ways (dependent upon observers). Numbers belong to a third category: "Bestowed Entities". These are entities whose existence is bestowed upon them by social agreement between conscious agents.

But this definition is so wide that it might well be useless. Religion and money are two examples of entities which owe their existence to a social agreement between conscious entities - yet they don't strike us as universal and out there (objective) as numbers do.

Indeed, this distinction is pertinent and our definition should be refined accordingly.

We must distinguish "Social Entities" (like money or religion) from "Bestowed Entities". Social Entities are not universal, they are dependent on the society, culture and period that gave them birth. In contrast, numbers are Platonic ideas which come into existence through an act of conscious agreement between ***ALL*** the agents capable of reaching such an accord. While conscious agents can

argue about the value of money (i.e., about its attributes) and about the existence of God - no rational, conscious agent can have an argument regarding the number one.

Apparently, the category of bestowed entities is free from the eternal dichotomy of internal versus external. It is both and comfortably so. But this is only an illusion. The dichotomy does persist. The bestowed entity is internal to the group of consenting conscious-rational agents - but it is external to any single agent (individual).

In other words, a group of rational conscious agents is certain to bestow existence on the number one. But to each and every member in the group the number one is external. It is through the power of the ***GROUP*** that existence is bestowed. From the individual's point of view, this existence emanates from outside him (from the group) and, therefore, is external. Existence is bestowed by changing the frame of reference (from individual to group).

But this is precisely how we attribute meaning to something!!! We change our frame of reference and meaning emerges. The death of the soldier is meaningful from the point of view of the state and the rituals of the church are meaningful from the point of view of God. By shifting among frames of reference, we elicit and extract and derive meaning.

If we bestow existence and derive meaning using the same mental (cognitive) mechanism, does this mean that the two processes are one and the same? Perhaps bestowing existence is a fancy term for the more prosaic attribution of meaning? Perhaps we give meaning to a number and thereby bestow existence upon it? Perhaps the number's existence is only its meaning and no more?

If so, all bestowed entities must be meaning-ful. In other words: all of them must depend for their existence on observers (rational-conscious agents). In such a scenario, if all humans were to disappear (as well as all other intelligent observers), numbers would cease to exist.

Intuitively, we know this is not true. To prove that it is untrue is, however, difficult. Still, numbers are acknowledged to have an independent, universal quality. Their existence does depend on intelligent observers in agreement. But they exist as potentialities, as Platonic ideas, as tendencies. They materialize through the agreement of intelligent agents rather the same way that ectoplasm was supposed to have materialized through spiritualist mediums. The agreement of the group is the ***CHANNEL*** through which numbers (and other bestowed entities, such as the laws of physics) are materialized, come into being.

We are creators. In creation, one derives the new from the old. There are laws of conservation that all entities, no matter how supreme, are subject to. We can rearrange, redefine, recombine physical and other substrates. But we cannot create substrates ex nihilo. Thus, everything MUST exist one way or another before we allow it existence as we define it. This rule equally applies bestowed entities.

BUT

Wherever humans are involved, springs the eternal dichotomy of internal and external. Art makes use of a physical substrate but it succumbs to external laws of interpretation and thus derives its meaning (its existence as *ART*). The physical world, in contrast (similar to computer programmes) contains both the substrate and the

operational procedures to be applied, also known as the laws of nature.

This is the source of the conceptual confusion. In creating, we materialize that which is already there, we give it venue and allow it expression. But we are also forever bound to the dichotomy of internal and external: a ***HUMAN*** dichotomy which has to do with our false position as observers and with our ability to introspect. So, we mistakenly confuse the two issues by applying this dichotomy where it does not belong.

When we bestow existence upon a number it is not that the number is external to us and we internalize it or that it is internal and we merely externalize it. It is both external and internal. By bestowing existence upon it, we merely recognize it. In other words, it cannot be that, through interaction with us, the number changes its nature (from external to internal or the converse).

By merely realizing something and acknowledging this newfound knowledge, we do not change its nature. This is why meaning has nothing to do with existence, bestowed or not. Meaning is a human category. It is the name we give to the cognitive experience of shifting frames of reference. It has nothing to do with entities, only with us.

The world has no internal and external to it. Only we do. And when we bestow existence upon a number we only acknowledge its existence. It exists either as neural networks in our brains, or as some other entity (Platonic Idea). But, it exists and no amount of interactions with us, humans, is ever going to change this.

Experience, Common

The commonality of an experience, shared by unrelated individuals in precisely the same way, is thought to constitute proof of its veracity and objectivity. Some thing is assumed to be "out there" if it identically affects the minds of observers. A common experience, it is deduced, imparts information about the world as it is.

But a shared experience may be the exclusive outcome of the idiosyncrasies of the human mind. It may teach us more about the observers' brains and neural processes than about any independent, external "trigger". The information manifested in an experience common to many may pertain to the world, to the observers, or to the interaction between the world and said observers.

Thus, Unidentified Flying Objects (UFOs) have been observed by millions in different parts of the world at different times. Does this "prove" that they exist? No, it does not. This mass experience can be the result of the common wiring of the brains of human beings who respond to stimuli identically (by spotting a UFO). Or it can be some kind of shared psychosis.

Expectations, Economic

Economies revolve around and are determined by "anchors": stores of value that assume pivotal roles and lend character to transactions and economic players alike. Well into the 19 century, tangible assets such as real estate and commodities constituted the bulk of the exchanges that occurred in marketplaces, both national and global. People bought and sold land, buildings, minerals, edibles, and capital goods. These were regarded not merely as means of production but also as forms of wealth.

Inevitably, human society organized itself to facilitate

such exchanges. The legal and political systems sought to support, encourage, and catalyze transactions by enhancing and enforcing property rights, by providing public goods, and by rectifying market failures.

Later on and well into the 1980s, symbolic representations of ownership of real goods and property (e.g, shares, commercial paper, collateralized bonds, forward contracts) were all the rage. By the end of this period, these surpassed the size of markets in underlying assets. Thus, the daily turnover in stocks, bonds, and currencies dwarfed the annual value added in all industries combined.

Again, Mankind adapted to this new environment. Technology catered to the needs of traders and speculators, businessmen and middlemen. Advances in telecommunications and transportation followed inexorably. The concept of intellectual property rights was introduced. A financial infrastructure emerged, replete with highly specialized institutions (e.g., central banks) and businesses (for instance, investment banks, jobbers, and private equity funds).

We are in the throes of a third wave. Instead of buying and selling assets one way (as tangibles) or the other (as symbols) - we increasingly trade in expectations (in other words, we transfer risks). The markets in derivatives (options, futures, indices, swaps, collateralized instruments, and so on) are flourishing.

Society is never far behind. Even the most conservative economic structures and institutions now strive to manage expectations. Thus, for example, rather than tackle inflation directly, central banks currently seek to subdue it by issuing inflation targets (in other words, they aim to

influence public expectations regarding future inflation).

The more abstract the item traded, the less cumbersome it is and the more frictionless the exchanges in which it is swapped. The smooth transmission of information gives rise to both positive and negative outcomes: more efficient markets, on the one hand - and contagion on the other hand; less volatility on the one hand - and swifter reactions to bad news on the other hand (hence the need for market breakers); the immediate incorporation of new data in prices on the one hand - and asset bubbles on the other hand.

Hitherto, even the most arcane and abstract contract traded was somehow attached to and derived from an underlying tangible asset, no matter how remotely. But this linkage may soon be dispensed with. The future may witness the bartering of agreements that have nothing to do with real world objects or values.

In days to come, traders and speculators will be able to generate on the fly their own, custom-made, one-time, investment vehicles for each and every specific transaction. They will do so by combining "off-the-shelf", publicly traded components. Gains and losses will be determined by arbitrary rules or by reference to extraneous events. Real estate, commodities, and capital goods will revert to their original forms and functions: bare necessities to be utilized and consumed, not speculated on.

Eugenics

"It is clear that modern medicine has created a serious dilemma ... In the past, there were many children who never survived - they succumbed to various diseases ...

But in a sense modern medicine has put natural selection out of commission. Something that has helped one individual over a serious illness can in the long run contribute to weakening the resistance of the whole human race to certain diseases. If we pay absolutely no attention to what is called hereditary hygiene, we could find ourselves facing a degeneration of the human race. Mankind's hereditary potential for resisting serious disease will be weakened."

Jostein Gaarder in "Sophie's World", a bestselling philosophy textbook for adolescents published in Oslo, Norway, in 1991 and, afterwards, throughout the world, having been translated to dozens of languages.

The Nazis regarded the murder of the feeble-minded and the mentally insane - intended to purify the race and maintain hereditary hygiene - as a form of euthanasia. German doctors were enthusiastic proponents of an eugenics movements rooted in 19th century social Darwinism. Luke Gormally writes, in his essay "Walton, Davies, and Boyd" (published in "Euthanasia Examined - Ethical, Clinical, and Legal Perspectives", ed. John Keown, Cambridge University Press, 1995):

"When the jurist Karl Binding and the psychiatrist Alfred Hoche published their tract ***The Permission to Destroy Life that is Not Worth Living*** in 1920 ... their ***motive*** was to rid society of the 'human ballast and enormous economic burden' of care for the mentally ill, the handicapped, retarded and deformed children, and the incurably ill. But the ***reason*** they invoked to ***justify*** the killing of human beings who fell into these categories was that the lives of such human beings were 'not worth living', were 'devoid of value'"

It is this association with the hideous Nazi regime that gave eugenics - a term coined by a relative of Charles Darwin, Sir Francis Galton, in 1883 - its bad name. Richard Lynn, of the University of Ulster of North Ireland, thinks that this recoil resulted in "Dysgenics - the genetic deterioration of modern (human) population", as the title of his controversial tome puts it.

The crux of the argument for eugenics is that a host of technological, cultural, and social developments conspired to give rise to negative selection of the weakest, least intelligent, sickest, the habitually criminal, the sexually deviant, the mentally-ill, and the least adapted.

Contraception is more widely used by the affluent and the well-educated than by the destitute and dull. Birth control as practiced in places like China distorted both the sex distribution in the cities - and increased the weight of the rural population (rural couples in China are allowed to have two children rather than the urban one).

Modern medicine and the welfare state collaborate in sustaining alive individuals - mainly the mentally retarded, the mentally ill, the sick, and the genetically defective - who would otherwise have been culled by natural selection to the betterment of the entire species.

Eugenics may be based on a literal understanding of Darwin's metaphor.

The 2002 edition of the Encyclopedia Britannica has this to say:

"Darwin's description of the process of natural selection as the survival of the fittest in the struggle for life is a metaphor. 'Struggle' does not necessarily mean contention, strife, or combat; 'survival' does not mean that ravages of

death are needed to make the selection effective; and 'fittest' is virtually never a single optimal genotype but rather an array of genotypes that collectively enhance population survival rather than extinction. All these considerations are most apposite to consideration of natural selection in humans. Decreasing infant and childhood mortality rates do not necessarily mean that natural selection in the human species no longer operates. Theoretically, natural selection could be very effective if all the children born reached maturity. Two conditions are needed to make this theoretical possibility realized: first, variation in the number of children per family and, second, variation correlated with the genetic properties of the parents. Neither of these conditions is farfetched."

The eugenics debate is only the visible extremity of the Man vs. Nature conundrum. Have we truly conquered nature and extracted ourselves from its determinism? Have we graduated from natural to cultural evolution, from natural to artificial selection, and from genes to memes?

Does the evolutionary process culminate in a being that transcends its genetic baggage, that programs and charts its future, and that allows its weakest and sickest to survive? Supplanting the imperative of the survival of the fittest with a culturally-sensitive principle may be the hallmark of a successful evolution, rather than the beginning of an inexorable decline.

The eugenics movement turns this argument on its head. They accept the premise that the contribution of natural selection to the makeup of future human generations is glacial and negligible. But they reject the conclusion that, having ridden ourselves of its tyranny, we can now let the weak and sick among us survive and multiply. Rather,

they propose to replace natural selection with eugenics.

But who, by which authority, and according to what guidelines will administer this man-made culling and decide who is to live and who is to die, who is to breed and who may not? Why select by intelligence and not by courtesy or altruism or church-going - or al of them together? It is here that eugenics fails miserably. Should the criterion be physical, like in ancient Sparta? Should it be mental? Should IQ determine one's fate - or social status or wealth? Different answers yield disparate eugenic programs and target dissimilar groups in the population.

Aren't eugenic criteria liable to be unduly influenced by fashion and cultural bias? Can we agree on a universal eugenic agenda in a world as ethnically and culturally diverse as ours? If we do get it wrong - and the chances are overwhelming - will we not damage our gene pool irreparably and, with it, the future of our species?

And even if many will avoid a slippery slope leading from eugenics to active extermination of "inferior" groups in the general population - can we guarantee that everyone will? How to prevent eugenics from being appropriated by an intrusive, authoritarian, or even murderous state?

Modern eugenicists distance themselves from the crude methods adopted at the beginning of the last century by 29 countries, including Germany, The United States, Canada, Switzerland, Austria, Venezuela, Estonia, Argentina, Norway, Denmark, Sweden (until 1976), Brazil, Italy, Greece, and Spain.

They talk about free contraceptives for low-IQ women, vasectomies or tubal ligations for criminals, sperm banks

with contributions from high achievers, and incentives for college students to procreate. Modern genetic engineering and biotechnology are readily applicable to eugenic projects. Cloning can serve to preserve the genes of the fittest. Embryo selection and prenatal diagnosis of genetically diseased embryos can reduce the number of the unfit.

But even these innocuous variants of eugenics fly in the face of liberalism. Inequality, claim the proponents of hereditary amelioration, is genetic, not environmental. All men are created unequal and as much subject to the natural laws of heredity as are cows and bees. Inferior people give birth to inferior offspring and, thus, propagate their inferiority.

Even if this were true - which is at best debatable - the question is whether the inferior specimen of our species possess the inalienable right to reproduce? If society is to bear the costs of over-population - social welfare, medical care, daycare centers - then society has the right to regulate procreation. But does it have the right to act discriminately in doing so?

Another dilemma is whether we have the moral right - let alone the necessary knowledge - to interfere with natural as well as social and demographic trends. Eugenicists counter that contraception and indiscriminate medicine already do just that. Yet, studies show that the more affluent and educated a population becomes - the less fecund it is. Birth rates throughout the world have dropped dramatically already.

Instead of culling the great unwashed and the unworthy - wouldn't it be a better idea to educate them (or their off-spring) and provide them with economic opportunities

(euthenics rather than eugenics)? Human populations seem to self-regulate. A gentle and persistent nudge in the right direction - of increased affluence and better schooling - might achieve more than a hundred eugenic programs, voluntary or compulsory.

That eugenics presents itself not merely as a biological-social agenda, but as a panacea, ought to arouse suspicion. The typical eugenics text reads more like a catechism than a reasoned argument. Previous all-encompassing and omnicompetent plans tended to end traumatically - especially when they contrasted a human elite with a dispensable underclass of persons.

Above all, eugenics is about human hubris. To presume to know better than the lottery of life is haughty. Modern medicine largely obviates the need for eugenics in that it allows even genetically defective people to lead pretty normal lives. Of course, Man himself - being part of Nature - may be regarded as nothing more than an agent of natural selection. Still, many of the arguments advanced in favor of eugenics can be turned against it with embarrassing ease.

Consider sick children. True, they are a burden to society and a probable menace to the gene pool of the species. But they also inhibit further reproduction in their family by consuming the financial and mental resources of the parents. Their genes - however flawed - contribute to genetic diversity. Even a badly mutated phenotype sometimes yields precious scientific knowledge and an interesting genotype.

The implicit Weltbild of eugenics is static - but the real world is dynamic. There is no such thing as a "correct" genetic makeup towards which we must all strive. A

combination of genes may be perfectly adaptable to one environment - but woefully inadequate in another. It is therefore prudent to encourage genetic diversity or polymorphism.

The more rapidly the world changes, the greater the value of mutations of all sorts. One never knows whether today's maladaptation will not prove to be tomorrow's winner. Ecosystems are invariably comprised of niches and different genes - even mutated ones - may fit different niches.

In the 18th century most peppered moths in Britain were silvery gray, indistinguishable from lichen-covered trunks of silver birches - their habitat. Darker moths were gobbled up by rapacious birds. Their mutated genes proved to be lethal. As soot from sprouting factories blackened these trunks - the very same genes, hitherto fatal, became an unmitigated blessing. The blacker specimen survived while their hitherto perfectly adapted fairer brethren perished ("industrial melanism"). This mode of natural selection is called directional.

Moreover, "bad" genes are often connected to "desirable genes" (pleitropy). Sickle cell anemia protects certain African tribes against malaria. This is called "diversifying or disruptive natural selection". Artificial selection can thus fast deteriorate into adverse selection due to ignorance.

Modern eugenics relies on statistics. It is no longer concerned with causes - but with phenomena and the likely effects of intervention. If the adverse traits of off-spring and parents are strongly correlated - then preventing parents with certain undesirable qualities from multiplying will surely reduce the incidence of said

dispositions in the general population. Yet, correlation does not necessarily imply causation. The manipulation of one parameter of the correlation does not inevitably alter it - or the incidence of the outcome.

Eugenicists often hark back to wisdom garnered by generations of breeders and farmers. But the unequivocal lesson of thousands of years of artificial selection is that cross-breeding (hybridization) - even of two lines of inferior genetic stock - yields valuable genotypes. Inter-marriage between races, groups in the population, ethnic groups, and clans is thus bound to improve the species' chances of survival more than any eugenic scheme.

Euthanasia

I. Definitions of Types of Euthanasia

Euthanasia is often erroneously described as "mercy killing". Most forms of euthanasia are, indeed, motivated by (some say: misplaced) mercy. Not so others. In Greek, "eu" means both "well" and "easy" and "Thanatos" is death.

Euthanasia is the intentional premature termination of another person's life either by direct intervention (***active euthanasia***) or by withholding life-prolonging measures and resources (***passive euthanasia***), either at the express or implied request of that person (***voluntary euthanasia***), or in the absence of such approval (***non-voluntary euthanasia***). ***Involuntary euthanasia*** - where the individual wishes to go on living - is an euphemism for ***murder***.

To my mind, passive euthanasia is immoral. The abrupt withdrawal of medical treatment, feeding, and hydration results in a slow and (potentially) torturous death. It took

Terri Schiavo 13 days to die, when her tubes were withdrawn in the last two weeks of March 2005. It is morally wrong to subject even animals to such gratuitous suffering. Moreover, passive euthanasia allows us to evade personal responsibility for the patient's death. In active euthanasia, the relationship between the act (of administering a lethal medication, for instance) and its consequences is direct and unambiguous.

As the philosopher John Finnis notes, to qualify as euthanasia, the termination of life has to be the main and intended aim of the act or omission that lead to it. If the loss of life is incidental (a side effect), the agent is still morally responsible but to describe his actions and omissions as euthanasia would be misleading. Volntariness (accepting the foreseen but unintended consequences of one's actions and omissions) should be distinguished from intention.

Still, this sophistry obscures the main issue:

If the sanctity of life is a supreme and overriding value ("basic good"), it ought to surely preclude and proscribe all acts and omissions which may shorten it, even when the shortening of life is a mere deleterious side effect.

But this is not the case. The sanctity and value of life compete with a host of other equally potent moral demands. Even the most devout pro-life ethicist accepts that certain medical decisions - for instance, to administer strong analgesics - inevitably truncate the patient's life. Yet, this is considered moral because the resulting euthanasia is not the main intention of the pain-relieving doctor.

Moreover, the apparent dilemma between the two values

(reduce suffering or preserve life) is non-existent.

There are four possible situations. Imagine a patient writhing with insufferable pain.

1. The patient's life is not at risk if she is not medicated with painkillers (she risks dying if she is medicated)

2. The patient's life is not at risk either way, medicated or not

3. The patient's life is at risk either way, medicated or not

4. The patient's life is at risk if she is not medicated with painkillers

In all four cases, the decisions our doctor has to make are ethically clear cut. He should administer pain-alleviating drugs, except when the patient risks dying (in 1 above). The (possible) shortening of the patient's life (which is guesswork, at best) is immaterial.

II. Who is or Should Be Subject to Euthanasia? The Problem of Dualism vs. Reductionism

With the exception of radical animal rights activists, most philosophers and laymen consider people - human beings - to be entitled to "special treatment", to be in possession of unique rights (and commensurate obligations), and to be capable of feats unparalleled in other species.

Thus, opponents of euthanasia universally oppose the killing of "persons". As the (pro-euthanasia) philosopher John Harris puts it:

" ... concern for their welfare, respect for their wishes, respect for the intrinsic value of their lives and respect for their interests."

Ronald Dworkin emphasizes the investments - made by nature, the person involved, and others - which euthanasia wastes. But he also draws attention to the person's "critical interests" - the interests whose satisfaction makes life better to live. The manner of one's own death may be such a critical interest. Hence, one should have the right to choose how one dies because the "right kind" of death (e.g., painless, quick, dignified) reflects on one's entire life, affirms and improves it.

But who is a person? What makes us human? Many things, most of which are irrelevant to our discussion.

Broadly speaking, though, there are two schools of thought:

(i) That we are rendered human by the very event of our conception (egg meets sperm), or, at the latest, our birth; or

(ii) That we are considered human only when we act and think as conscious humans do.

The proponents of the first case (i) claim that merely possessing a human body (or the potential to come to possess such a body) is enough to qualify us as "persons". There is no distinction between mind and abode - thought, feelings, and actions are merely manifestations of one underlying unity. The fact that some of these manifestations have yet to materialize (in the case of an embryo) or are mere potentials (in the case of a comatose patient) does not detract from our essential, incontrovertible, and indivisible humanity. We may be immature or damaged persons - but we are persons all the same (and always will be persons).

Though considered "religious" and "spiritual", this notion

is actually a form of reductionism. The mind, "soul", and "spirit" are mere expressions of one unity, grounded in our "hardware" - in our bodies.

Those who argue the second case (ii) postulate that it is possible to have a human body which does not host a person. People in Persistent Vegetative States, for instance - or fetuses, for that matter - are human but also non-persons. This is because they do not yet - or are unable to - exercise their faculties. Personhood is complexity. When the latter ceases, so does the former. Personhood is acquired and is an extensive parameter, a total, defining state of being. One is either awake or asleep, either dead or alive, either in a state of personhood or not

The latter approach involves fine distinctions between potential, capacity, and skill. A human body (or fertilized egg) have the potential to think, write poetry, feel pain, and value life. At the right phase of somatic development, this potential becomes capacity and, once it is competently exercised - it is a skill.

Embryos and comatose people may have the potential to do and think - but, in the absence of capacities and skills, they are not full-fledged persons. Indeed, in all important respects, they are already dead.

Taken to its logical conclusion, this definition of a person also excludes newborn infants, the severely retarded, the hopelessly quadriplegic, and the catatonic. "Who is a person" becomes a matter of culturally-bound and medically-informed judgment which may be influenced by both ignorance and fashion and, thus, be arbitrary and immoral.

Imagine a computer infected by a computer virus which

cannot be quarantined, deleted, or fixed. The virus disables the host and renders it "dead". Is it still a computer? If someone broke into my house and stole it, can I file an insurance claim? If a colleague destroys it, can I sue her for the damages? The answer is yes. A computer is a computer for as long as it exists physically and a cure is bound to be found even against the most trenchant virus.

The definition of personhood must rely on objective, determinate and determinable criteria. The anti-euthanasia camp relies on bodily existence as one such criterion. The pro-euthanasia faction has yet to reciprocate.

III. Euthanasia and Suicide

Self-sacrifice, avoidable martyrdom, engaging in life risking activities, refusal to prolong one's life through medical treatment, euthanasia, overdosing, and self-destruction that is the result of coercion - are all closely related to suicide. They all involve a deliberately self-inflicted death.

But while suicide is chiefly intended to terminate a life – the other acts are aimed at perpetuating, strengthening, and defending values or other people. Many - not only religious people - are appalled by the choice implied in suicide - of death over life. They feel that it demeans life and abnegates its meaning.

Life's meaning - the outcome of active selection by the individual - is either external (such as "God's plan") or internal, the outcome of an arbitrary frame of reference, such as having a career goal. Our life is rendered meaningful only by integrating into an eternal thing, process, design, or being. Suicide makes life trivial

because the act is not natural - not part of the eternal framework, the undying process, the timeless cycle of birth and death. Suicide is a break with eternity.

Henry Sidgwick said that only conscious (i.e., intelligent) beings can appreciate values and meanings. So, life is significant to conscious, intelligent, though finite, beings - because it is a part of some eternal goal, plan, process, thing, design, or being. Suicide flies in the face of Sidgwick's dictum. It is a statement by an intelligent and conscious being about the meaninglessness of life.

If suicide is a statement, than society, in this case, is against the freedom of expression. In the case of suicide, free speech dissonantly clashes with the sanctity of a meaningful life. To rid itself of the anxiety brought on by this conflict, society cast suicide as a depraved or even criminal act and its perpetrators are much castigated.

The suicide violates not only the social contract but, many will add, covenants with God or nature. St. Thomas Aquinas wrote in the "Summa Theologiae" that - since organisms strive to survive - suicide is an unnatural act. Moreover, it adversely affects the community and violates the property rights of God, the imputed owner of one's spirit. Christianity regards the immortal soul as a gift and, in Jewish writings, it is a deposit. Suicide amounts to the abuse or misuse of God's possessions, temporarily lodged in a corporeal mansion.

This paternalism was propagated, centuries later, by Sir William Blackstone, the codifier of British Law. Suicide - being self-murder - is a grave felony, which the state has a right to prevent and to punish for. In certain countries this still is the case. In Israel, for instance, a soldier is considered to be "military property" and an attempted

suicide is severely punished as "the corruption of an army chattel".

Paternalism, a malignant mutation of benevolence, is about objectifying people and treating them as possessions. Even fully-informed and consenting adults are not granted full, unmitigated autonomy, freedom, and privacy. This tends to breed "victimless crimes". The "culprits" - gamblers, homosexuals, communists, suicides, drug addicts, alcoholics, prostitutes – are "protected from themselves" by an intrusive nanny state.

The possession of a right by a person imposes on others a corresponding obligation not to act to frustrate its exercise. Suicide is often the choice of a mentally and legally competent adult. Life is such a basic and deep set phenomenon that even the incompetents - the mentally retarded or mentally insane or minors - can fully gauge its significance and make "informed" decisions, in my view.

The paternalists claim counterfactually that no competent adult "in his right mind" will ever decide to commit suicide. They cite the cases of suicides who survived and felt very happy that they have - as a compelling reason to intervene. But we all make irreversible decisions for which, sometimes, we are sorry. It gives no one the right to interfere.

Paternalism is a slippery slope. Should the state be allowed to prevent the birth of a genetically defective child or forbid his parents to marry in the first place? Should unhealthy adults be forced to abstain from smoking, or steer clear from alcohol? Should they be coerced to exercise?

Suicide is subject to a double moral standard. People are

permitted - nay, encouraged - to sacrifice their life only in certain, socially sanctioned, ways. To die on the battlefield or in defense of one's religion is commendable. This hypocrisy reveals how power structures - the state, institutional religion, political parties, national movements - aim to monopolize the lives of citizens and adherents to do with as they see fit. Suicide threatens this monopoly. Hence the taboo.

Does one have a right to take one's life?

The answer is: it depends. Certain cultures and societies encourage suicide. Both Japanese kamikaze and Jewish martyrs were extolled for their suicidal actions. Certain professions are knowingly life-threatening - soldiers, firemen, policemen. Certain industries - like the manufacture of armaments, cigarettes, and alcohol - boost overall mortality rates.

In general, suicide is commended when it serves social ends, enhances the cohesion of the group, upholds its values, multiplies its wealth, or defends it from external and internal threats. Social structures and human collectives - empires, countries, firms, bands, institutions - often commit suicide. This is considered to be a healthy process.

More about suicide, the meaning of life, and related considerations - ***HERE.***

Back to our central dilemma:

Is it morally justified to commit suicide in order to avoid certain, forthcoming, unavoidable, and unrelenting torture, pain, or coma?

Is it morally justified to ask others to help you to commit

suicide (for instance, if you are incapacitated)?

Imagine a society that venerates life-with-dignity by making euthanasia mandatory - would it then and there be morally justified to ***refuse*** to commit suicide or to help in it?

IV. Euthanasia and Murder

Imagine killing someone before we have ascertained her preferences as to the manner of her death and whether she wants to die at all. This constitutes murder even if, after the fact, we can prove conclusively that the victim wanted to die.

Is murder, therefore, merely the act of taking life, regardless of circumstances - or is it the nature of the interpersonal interaction that counts? If the latter, the victim's will counts - if the former, it is irrelevant.

V. Euthanasia, the Value of Life, and the Right to Life

Few philosophers, legislators, and laymen support non-voluntary or involuntary euthanasia. These types of "mercy" killing are associated with the most heinous crimes against humanity committed by the Nazi regime on both its own people and other nations. They are and were also an integral part of every program of active eugenics.

The arguments against killing someone who hasn't expressed a wish to die (let alone someone who has expressed a desire to go on living) revolve around the right to life. People are assumed to value their life, cherish it, and protect it. Euthanasia - especially the non-voluntary forms - amounts to depriving someone (as well as their nearest and dearest) of something they value.

The right to life - at least as far as human beings are concerned - is a rarely questioned fundamental moral principle. In Western cultures, it is assumed to be inalienable and indivisible (i.e., monolithic). Yet, it is neither. Even if we accept the axiomatic - and therefore arbitrary - source of this right, we are still faced with intractable dilemmas. All said, the right to life may be nothing more than a cultural construct, dependent on social mores, historical contexts, and exegetic systems.

Rights - whether moral or legal - impose obligations or duties on third parties towards the right-holder. One has a right ***AGAINST*** other people and thus can prescribe to them certain obligatory behaviors and proscribe certain acts or omissions. Rights and duties are two sides of the same Janus-like ethical coin.

This duality confuses people. They often erroneously identify rights with their attendant duties or obligations, with the morally decent, or even with the morally permissible. One's rights inform other people how they ***MUST*** behave towards one - not how they ***SHOULD*** or ***OUGHT*** to act morally. Moral behavior is not dependent on the existence of a right. Obligations are.

To complicate matters further, many apparently simple and straightforward rights are amalgams of more basic moral or legal principles. To treat such rights as unities is to mistreat them.

Take the right to life. It is a compendium of no less than eight distinct rights: the right to be brought to life, the right to be born, the right to have one's life maintained, the right not to be killed, the right to have one's life saved, the right to save one's life (wrongly reduced to the right to self-defence), the right to terminate one's life, and

the right to have one's life terminated.

None of these rights is self-evident, or unambiguous, or universal, or immutable, or automatically applicable. It is safe to say, therefore, that these rights are not primary as hitherto believed - but derivative.

Go HERE to learn more about the Right to Life.

Of the eight strands comprising the right to life, we are concerned with a mere two.

The Right to Have One's Life Maintained

This leads to a more general quandary. To what extent can one use other people's bodies, their property, their time, their resources and to deprive them of pleasure, comfort, material possessions, income, or any other thing - in order to maintain one's life?

Even if it were possible in reality, it is indefensible to maintain that I have a right to sustain, improve, or prolong my life at another's expense. I cannot demand - though I can morally expect - even a trivial and minimal sacrifice from another in order to prolong my life. I have no right to do so.

Of course, the existence of an implicit, let alone explicit, contract between myself and another party would change the picture. The right to demand sacrifices commensurate with the provisions of the contract would then crystallize and create corresponding duties and obligations.

No embryo has a right to sustain its life, maintain, or prolong it at its mother's expense. This is true regardless of how insignificant the sacrifice required of her is.

Yet, by knowingly and intentionally conceiving the embryo, the mother can be said to have signed a contract with it. The contract causes the right of the embryo to demand such sacrifices from his mother to crystallize. It also creates corresponding duties and obligations of the mother towards her embryo.

We often find ourselves in a situation where we do not have a given right against other individuals - but we do possess this very same right against society. Society owes us what no constituent-individual does.

Thus, we all have a right to sustain our lives, maintain, prolong, or even improve them at society's expense - no matter how major and significant the resources required. Public hospitals, state pension schemes, and police forces may be needed in order to fulfill society's obligations to prolong, maintain, and improve our lives - but fulfill them it must.

Still, each one of us can sign a contract with society - implicitly or explicitly - and abrogate this right. One can volunteer to join the army. Such an act constitutes a contract in which the individual assumes the duty or obligation to give up his or her life.

The Right not to be Killed

It is commonly agreed that every person has the right not to be killed unjustly. Admittedly, what is just and what is unjust is determined by an ethical calculus or a social contract - both constantly in flux.

Still, even if we assume an Archimedean immutable point of moral reference - does A's right not to be killed mean that third parties are to refrain from enforcing the rights of other people against A? What if the only way to right

wrongs committed by A against others - was to kill A? The moral obligation to right wrongs is about restoring the rights of the wronged.

If the continued existence of A is predicated on the repeated and continuous violation of the rights of others - and these other people object to it - then A must be killed if that is the only way to right the wrong and re-assert the rights of A's victims.

The Right to have One's Life Saved

There is no such right because there is no moral obligation or duty to save a life. That people believe otherwise demonstrates the muddle between the morally commendable, desirable, and decent ("ought", "should") and the morally obligatory, the result of other people's rights ("must"). In some countries, the obligation to save a life is codified in the law of the land. But legal rights and obligations do not always correspond to moral rights and obligations, or give rise to them.

VI. Euthanasia and Personal Autonomy

The right to have one's life terminated at will (euthanasia), is subject to social, ethical, and legal strictures. In some countries - such as the Netherlands - it is legal (and socially acceptable) to have one's life terminated with the help of third parties given a sufficient deterioration in the quality of life and given the imminence of death. One has to be of sound mind and will one's death knowingly, intentionally, repeatedly, and forcefully.

Should we have a right to die (given hopeless medical circumstances)? When our wish to end it all conflicts with society's (admittedly, paternalistic) judgment of what is right and what is good for us and for others - what should

prevail?

One the one hand, as Patrick Henry put it, "give me liberty or give me death". A life without personal autonomy and without the freedom to make unpopular and non-conformist decisions is, arguably, not worth living at all!

As Dworkin states:

"Making someone die in a way that others approve, but he believes a horrifying contradiction of his life, is a devastating, odious form of tyranny".

Still, even the victim's express wishes may prove to be transient and circumstantial (due to depression, misinformation, or clouded judgment). Can we regard them as immutable and invariable? Moreover, what if the circumstances prove everyone - the victim included - wrong? What if a cure to the victim's disease is found ten minutes after the euthanasia?

VII. Euthanasia and Society

It is commonly accepted that where two equally potent values clash, society steps in as an arbiter. The right to material welfare (food, shelter, basic possessions) often conflicts with the right to own private property and to benefit from it. Society strikes a fine balance by, on the one hand, taking from the rich and giving to the poor (through redistributive taxation) and, on the other hand, prohibiting and punishing theft and looting.

Euthanasia involves a few such finely-balanced values: the sanctity of life vs. personal autonomy, the welfare of the many vs. the welfare of the individual, the relief of pain vs. the prolongation and preservation of life.

Why can't society step in as arbiter in these cases as well?

Moreover, what if a person is rendered incapable of expressing his preferences with regards to the manner and timing of his death - should society step in (through the agency of his family or through the courts or legislature) and make the decision for him?

In a variety of legal situations, parents, court-appointed guardians, custodians, and conservators act for, on behalf of, and in lieu of underage children, the physically and mentally challenged and the disabled. Why not here?

We must distinguish between four situations:

1. The patient foresaw the circumstances and provided an advance directive, asking explicitly for his life to be terminated when certain conditions are met.

2. The patient did not provide an advanced directive but expressed his preference clearly before he was incapacitated. The risk here is that self-interested family members may lie.

3. The patient did not provide an advance directive and did not express his preference aloud - but the decision to terminate his life is commensurate with both his character and with other decisions he made.

4. There is no indication, however indirect, that the patient wishes or would have wished to die had he been capable of expression but the patient is no longer a "person" and, therefore, has no interests to respect, observe, and protect. Moreover, the patient is a burden to himself, to his nearest and dearest, and to society at large. Euthanasia is the right, just, and most efficient thing to do.

Society can legalize euthanasia in the first case and, subject to rigorous fact checking, in the second and third cases. To prevent economically-motivated murder disguised as euthanasia, non-voluntary and involuntary euthanasia (as set in the forth case above) should be banned outright.

VIII. Slippery Slope Arguments

Issues in the Calculus of Rights - The Hierarchy of Rights

The right to life supersedes - in Western moral and legal systems - all other rights. It overrules the right to one's body, to comfort, to the avoidance of pain, or to ownership of property. Given such lack of equivocation, the amount of dilemmas and controversies surrounding the right to life is, therefore, surprising.

When there is a clash between equally potent rights - for instance, the conflicting rights to life of two people - we can decide among them randomly (by flipping a coin, or casting dice). Alternatively, we can add and subtract rights in a somewhat macabre arithmetic.

Thus, if the continued life of an embryo or a fetus threatens the mother's life - that is, assuming, controversially, that both of them have an equal right to life - we can decide to kill the fetus. By adding to the mother's right to life her right to her own body we outweigh the fetus' right to life.

The Difference between Killing and Letting Die

Counterintuitively, there is a moral gulf between killing (taking a life) and letting die (not saving a life). The right not to be killed is undisputed. There is no right to have

one's own life saved. Where there is a right - and only where there is one - there is an obligation. Thus, while there is an obligation not to kill - there is no obligation to save a life.

Anti-euthanasia ethicists fear that allowing one kind of euthanasia - even under the strictest and explicit conditions - will open the floodgates. The value of life will be depreciated and made subordinate to considerations of economic efficacy and personal convenience. Murders, disguised as acts of euthanasia, will proliferate and none of us will be safe once we reach old age or become disabled.

Years of legally-sanctioned euthanasia in the Netherlands, parts of Australia, and a state or two in the United States tend to fly in the face of such fears. Doctors did not regard these shifts in public opinion and legislative climate as a blanket license to kill their charges. Family members proved to be far less bloodthirsty and avaricious than feared.

As long as non-voluntary and involuntary types of euthanasia are treated as felonies, it seems safe to allow patients to exercise their personal autonomy and grant them the right to die. Legalizing the institution of "advance directive" will go a long way towards regulating the field - as would a new code of medical ethics that will recognize and embrace reality: doctors, patients, and family members collude in their millions to commit numerous acts and omissions of euthanasia every day. It is their way of restoring dignity to the shattered lives and bodies of loved ones.

F

Fact (and Truth)

Thought experiments (Gedankenexperimenten) are "facts" in the sense that they have a "real life" correlate in the form of electrochemical activity in the brain. But it is quite obvious that they do not relate to facts "out there". They are not true statements.

But do they lack truth because they do not relate to facts? How are Truth and Fact interrelated?

One answer is that Truth pertains to the possibility that an event will occur. If true – it must occur and if false – it cannot occur. This is a binary world of extreme existential conditions. Must all possible events occur? Of course not. If they do not occur would they still be true? Must a statement have a real life correlate to be true?

Instinctively, the answer is yes. We cannot conceive of a thought divorced from brainwaves. A statement which remains a mere potential seems to exist only in the nether land between truth and falsity. It becomes true only by materializing, by occurring, by matching up with real life. If we could prove that it will never do so, we would have felt justified in classifying it as false. This is the outgrowth of millennia of concrete, Aristotelian logic. Logical statements talk about the world and, therefore, if a statement cannot be shown to relate directly to the world, it is not true.

This approach, however, is the outcome of some underlying assumptions:

First, that the world is finite and also close to its end. To say that something that did not happen cannot be true is to say that it will never happen (i.e., to say that time and space – the world – are finite and are about to end momentarily).

Second, truth and falsity are assumed to be mutually exclusive. Quantum and fuzzy logics have long laid this one to rest. There are real world situations that are both true and not-true. A particle can "be" in two places at the same time. This fuzzy logic is incompatible with our daily experiences but if there is anything that we have learnt from physics in the last seven decades it is that the world is incompatible with our daily experiences.

The third assumption is that the psychic realm is but a subset of the material one. We are membranes with a very particular hole-size. We filter through only well defined types of experiences, are equipped with limited (and evolutionarily biased) senses, programmed in a way which tends to sustain us until we die. We are not neutral, objective observers. Actually, the very concept of observer is disputable – as modern physics, on the one hand and Eastern philosophy, on the other hand, have shown.

Imagine that a mad scientist has succeeded to infuse all the water in the world with a strong hallucinogen. At a given moment, all the people in the world see a huge flying saucer. What can we say about this saucer? Is it true? Is it "real"?

There is little doubt that the saucer does not exist. But who is to say so? If this statement is left unsaid – does it mean that it cannot exist and, therefore, is untrue? In this case (of the illusionary flying saucer), the statement that

remains unsaid is a true statement – and the statement that is uttered by millions is patently false.

Still, the argument can be made that the flying saucer did exist – though only in the minds of those who drank the contaminated water. What is this form of existence? In which sense does a hallucination "exist"? The psychophysical problem is that no causal relationship can be established between a thought and its real life correlate, the brainwaves that accompany it. Moreover, this leads to infinite regression. If the brainwaves created the thought – who created them, who made them happen? In other words: who is it (perhaps what is it) that thinks?

The subject is so convoluted that to say that the mental is a mere subset of the material is to speculate

It is, therefore, advisable to separate the ontological from the epistemological. But which is which? Facts are determined epistemologically and statistically by conscious and intelligent observers. Their "existence" rests on a sound epistemological footing. Yet we assume that in the absence of observers facts will continue their existence, will not lose their "factuality", their real life quality which is observer-independent and invariant.

What about truth? Surely, it rests on solid ontological foundations. Something is or is not true in reality and that is it. But then we saw that truth is determined psychically and, therefore, is vulnerable, for instance, to hallucinations. Moreover, the blurring of the lines in Quantum, non-Aristotelian, logics implies one of two: either that true and false are only "in our heads" (epistemological) – or that something is wrong with our interpretation of the world, with our exegetic mechanism (brain). If the latter case is true that the world does contain

mutually exclusive true and false values – but the organ which identifies these entities (the brain) has gone awry. The paradox is that the second approach also assumes that at least the perception of true and false values is dependent on the existence of an epistemological detection device.

Can something be true and reality and false in our minds? Of course it can (remember "Rashomon"). Could the reverse be true? Yes, it can. This is what we call optical or sensory illusions. Even solidity is an illusion of our senses – there are no such things as solid objects (remember the physicist's desk which is 99.99999% vacuum with minute granules of matter floating about).

To reconcile these two concepts, we must let go of the old belief (probably vital to our sanity) that we can know the world. We probably cannot and this is the source of our confusion. The world may be inhabited by "true" things and "false" things. It may be true that truth is existence and falsity is non-existence. But we will never know because we are incapable of knowing anything about the world as it is.

We are, however, fully equipped to know about the mental events inside our heads. It is there that the representations of the real world form. We are acquainted with these representations (concepts, images, symbols, language in general) – and mistake them for the world itself. Since we have no way of directly knowing the world (without the intervention of our interpretative mechanisms) we are unable to tell when a certain representation corresponds to an event which is observer-independent and invariant and when it corresponds to nothing of the kind. When we see an image – it could be the result of an interaction with light outside us (objectively "real"), or the result of a

dream, a drug induced illusion, fatigue and any other number of brain events not correlated with the real world. These are observer-dependent phenomena and, subject to an agreement between a sufficient number of observers, they are judged to be true or "to have happened" (e.g., religious miracles).

To ask if something is true or not is not a meaningful question unless it relates to our internal world and to our capacity as observers. When we say "true" we mean "exists", or "existed", or "most definitely will exist" (the sun will rise tomorrow). But existence can only be ascertained in our minds. Truth, therefore, is nothing but a state of mind. Existence is determined by observing and comparing the two (the outside and the inside, the real and the mental). This yields a picture of the world which may be closely correlated to reality – and, yet again, may not.

Fame and Celebrity

The notions of historical fame, celebrity and notoriety are a mixed bag. Some people are famous during (all or part of) their lifetime and forgotten soon after. Others gain fame only centuries after their death. Still others are considered important figures in history yet are known only to a select few.

So, what makes a person and his biography famous or, even more important, of historical significance?

One possible taxonomy of famous personages is the following:

a. People who exert influence and exercise power over others during their lifetime.

b. People who exert influence over their fellow

humans posthumously.

c. People who achieve influence via an agent or a third party – human or non-human.

To be considered (and, thus, to become) a historical figure a person must satisfy at least condition B above. This, in itself, is a sufficient (though not a necessary) condition. Alternatively, a person may satisfy condition A above. Once more, this is a sufficient condition – though hardly a necessary one.

A person has two other ways to qualify:

He can either satisfy a combination of conditions A and C or Meet the requirements of conditions B and C.

Historical stature is a direct descendant and derivative of the influence the historical figure has had over other people. This influence cannot remain potential – it must be actually wielded. Put differently, historical prominence is what we call an interaction between people in which one of them influences many others disproportionately.

You may have noticed that the above criteria lack a quantitative dimension. Yet, without a quantitative determinant they lose their qualifying power. Some kind of formula (in the quantitative sense) must be found in order to restore meaning to the above classes of fame and standing in history.

Mistreating Celebrities - An Interview

Granted to Superinteressante Magazine in Brazil

Q. Fame and TV shows about celebrities usually have a huge audience. This is understandable: people like to

see other successful people. But why people like to see celebrities being humiliated?

A. As far as their fans are concerned, celebrities fulfil two emotional functions: they provide a mythical narrative (a story that the fan can follow and identify with) and they function as blank screens onto which the fans project their dreams, hopes, fears, plans, values, and desires (wish fulfilment). The slightest deviation from these prescribed roles provokes enormous rage and makes us want to punish (humiliate) the "deviant" celebrities.

But why?

When the human foibles, vulnerabilities, and frailties of a celebrity are revealed, the fan feels humiliated, "cheated", hopeless, and "empty". To reassert his self-worth, the fan must establish his or her moral superiority over the erring and "sinful" celebrity. The fan must "teach the celebrity a lesson" and show the celebrity "who's boss". It is a primitive defense mechanism - narcissistic grandiosity. It puts the fan on equal footing with the exposed and "naked" celebrity.

Q. This taste for watching a person being humiliated has something to do with the attraction to catastrophes and tragedies?

A. There is always a sadistic pleasure and a morbid fascination in vicarious suffering. Being spared the pains and tribulations others go through makes the observer feel "chosen", secure, and virtuous. The higher celebrities rise, the harder they fall. There is something gratifying in hubris defied and punished.

Q. Do you believe the audience put themselves in the place of the reporter (when he asks something

embarrassing to a celebrity) and become in some way revenged?

A. The reporter "represents" the "bloodthirsty" public. Belittling celebrities or watching their comeuppance is the modern equivalent of the gladiator rink. Gossip used to fulfil the same function and now the mass media broadcast live the slaughtering of fallen gods. There is no question of revenge here - just Schadenfreude, the guilty joy of witnessing your superiors penalized and "cut down to size".

Q. In your country, who are the celebrities people love to hate?

A. Israelis like to watch politicians and wealthy businessmen reduced, demeaned, and slighted. In Macedonia, where I live, all famous people, regardless of their vocation, are subject to intense, proactive, and destructive envy. This love-hate relationship with their idols, this ambivalence, is attributed by psychodynamic theories of personal development to the child's emotions towards his parents. Indeed, we transfer and displace many negative emotions we harbor onto celebrities.

Q. I would never dare asking some questions the reporters from Panico ask the celebrities. What are the characteristics of people like these reporters?

A. Sadistic, ambitious, narcissistic, lacking empathy, self-righteous, pathologically and destructively envious, with a fluctuating sense of self-worth (possibly an inferiority complex).

6. Do you believe the actors and reporters want themselves to be as famous as the celebrities they tease? Because I think this is almost happening...

A. The line is very thin. Newsmakers and newsmen and women are celebrities merely because they are public figures and regardless of their true accomplishments. A celebrity is famous for being famous. Of course, such journalists will likely to fall prey to up and coming colleagues in an endless and self-perpetuating food chain...

7. I think that the fan-celebrity relationship gratifies both sides. What are the advantages the fans get and what are the advantages the celebrities get?

A. There is an implicit contract between a celebrity and his fans. The celebrity is obliged to "act the part", to fulfil the expectations of his admirers, not to deviate from the roles that they impose and he or she accepts. In return the fans shower the celebrity with adulation. They idolize him or her and make him or her feel omnipotent, immortal, "larger than life", omniscient, superior, and sui generis (unique).

What are the fans getting for their trouble?

Above all, the ability to vicariously share the celebrity's fabulous (and, usually, partly confabulated) existence. The celebrity becomes their "representative" in fantasyland, their extension and proxy, the reification and embodiment of their deepest desires and most secret and guilty dreams. Many celebrities are also role models or father/mother figures. Celebrities are proof that there is more to life than drab and routine. That beautiful - nay, perfect - people do exist and that they do lead charmed lives. There's hope yet - this is the celebrity's message to his fans.

The celebrity's inevitable downfall and corruption is the modern-day equivalent of the medieval morality play.

This trajectory - from rags to riches and fame and back to rags or worse - proves that order and justice do prevail, that hubris invariably gets punished, and that the celebrity is no better, neither is he superior, to his fans.

8. Why are celebrities narcissists? How is this disturb born?

No one knows if pathological narcissism is the outcome of inherited traits, the sad result of abusive and traumatizing upbringing, or the confluence of both. Often, in the same family, with the same set of parents and an identical emotional environment - some siblings grow to be malignant narcissists, while others are perfectly "normal". Surely, this indicates a genetic predisposition of some people to develop narcissism.

It would seem reasonable to assume - though, at this stage, there is not a shred of proof - that the narcissist is born with a propensity to develop narcissistic defenses. These are triggered by abuse or trauma during the formative years in infancy or during early adolescence. By "abuse" I am referring to a spectrum of behaviors which objectify the child and treat it as an extension of the caregiver (parent) or as a mere instrument of gratification. Dotting and smothering are as abusive as beating and starving. And abuse can be dished out by peers as well as by parents, or by adult role models.

Not all celebrities are narcissists. Still, some of them surely are.

We all search for positive cues from people around us. These cues reinforce in us certain behaviour patterns. There is nothing special in the fact that the narcissist-celebrity does the same. However there are two major

differences between the narcissistic and the normal personality.

The first is quantitative. The normal person is likely to welcome a moderate amount of attention – verbal and non-verbal – in the form of affirmation, approval, or admiration. Too much attention, though, is perceived as onerous and is avoided. Destructive and negative criticism is avoided altogether.

The narcissist, in contrast, is the mental equivalent of an alcoholic. He is insatiable. He directs his whole behaviour, in fact his life, to obtain these pleasurable titbits of attention. He embeds them in a coherent, completely biased, picture of himself. He uses them to regulates his labile (fluctuating) sense of self-worth and self-esteem.

To elicit constant interest, the narcissist projects on to others a confabulated, fictitious version of himself, known as the False Self. The False Self is everything the narcissist is not: omniscient, omnipotent, charming, intelligent, rich, or well-connected.

The narcissist then proceeds to harvest reactions to this projected image from family members, friends, co-workers, neighbours, business partners and from colleagues. If these – the adulation, admiration, attention, fear, respect, applause, affirmation – are not forthcoming, the narcissist demands them, or extorts them. Money, compliments, a favourable critique, an appearance in the media, a sexual conquest are all converted into the same currency in the narcissist's mind, into "narcissistic supply".

So, the narcissist is not really interested in publicity per se

or in being famous. Truly he is concerned with the ***REACTIONS*** to his fame: how people watch him, notice him, talk about him, debate his actions. It "proves" to him that he exists.

The narcissist goes around "hunting and collecting" the way the expressions on people's faces change when they notice him. He places himself at the centre of attention, or even as a figure of controversy. He constantly and recurrently pesters those nearest and dearest to him in a bid to reassure himself that he is not losing his fame, his magic touch, the attention of his social milieu.

Family

The families of the not too distant past were orientated along four axes. These axes were not mutually exclusive. Some overlapped, all of them enhanced each other.

People got married for various reasons:

1. Because of social pressure and social norms (the Social Dyad)

2. To form a more efficient or synergetic economic unit (the Economic Dyad)

3. In pursuit of psychosexual fulfillment (the Psychosexual Dyad)

4. To secure long term companionship (the Companionship Dyad).

Thus, we can talk about the following four axes: Social-Economic, Emotional, Utilitarian (Rational), Private-Familial.

To illustrate how these axes were intertwined, let us

consider the Emotional one.

Until very recently, people used to get married because they felt very strongly about living alone, partly due to social condemnation of reculsiveness.

In some countries, people still subscribe to ideologies which promote the family as a pillar of society, the basic cell of the national organism, a hothouse in which to breed children for the army, and so on. These collective ideologies call for personal contributions and sacrifices. They have a strong emotional dimension and provide impetus to a host of behavior patterns.

But the emotional investment in today's individualistic-capitalist ideologies is no smaller than it was in yesterday's nationalistic ones. True, technological developments rendered past thinking obsolete and dysfunctional but did not quench Man's thirst for guidance and a worldview.

Still, as technology evolved, it became more and more disruptive to the family. Increased mobility, a decentralization of information sources, the transfers of the traditional functions of the family to societal and private sector establishments, the increased incidence of interpersonal interactions, safer sex with lesser or no consequences – all fostered the disintegration of the traditional, extended and nuclear family.

Consider the trends that directly affected women, for instance:

1. ***The emergence of common marital property*** and of laws for its equal distribution in case of divorce constituted a shift in legal philosophy in most societies. The result was a major (and on going) re-distribution of

wealth from men to women. Add to this the disparities in life expectancy between the two genders and the magnitude of the transfer of economic resources becomes evident.

Women are becoming richer because they live longer than men and thus inherit them and because they get a share of the marital property when they divorce them. These "endowments" are usually more than they had contributed to the couple in money terms. Women still earn less than men, for instance.

2. ***An increase in economic opportunities***. Social and ethical codes changed, technology allows for increased mobility, wars and economic upheavals led to the forced introduction of women into the labour markets.

3. The result of women's enhanced economic clout is a more ***egalitarian social and legal system***. Women's rights are being legally as well as informally secured in an evolutionary process, punctuated by minor legal revolutions.

4. Women had largely achieved equality in educational and economic opportunities and are fighting a winning battle in other domains of life (the military, political representation). Actually, in some legal respects, the ***bias is against men***. It is rare for a man to complain of sexual harassment or to receive alimony or custody of his children or, in many countries, to be the beneficiary of social welfare payments.

5. The ***emergence of socially-accepted (normative) single parent and non-nuclear families*** helped women to shape their lives as they see fit. Most single parent families are headed by women. Women single parents are

disadvantaged economically (their median income is very low even when adjusted to reflect transfer payments) - but many are taking the plunge.

6. Thus, gradually, the ***shaping of future generations*** becomes the exclusive domain of women. Even today, one third of all children in developed countries grow in single parent families with no male figure around to serve as a role model. This exclusivity has tremendous social and economic implications. Gradually and subtly the balance of power will shift as society becomes matriarchal.

7. The ***invention of the pill and other contraceptives*** liberated women sexually. The resulting sexual revolution affected both sexes but the main beneficiaries were women whose sexuality was suddenly legitimized. No longer under the cloud of unwanted pregnancy, women felt free to engage in sex with multiple partners.

8. In the face of this newfound freedom and the realities of changing sexual conduct, the ***double moral standard crumbled***. The existence of a legitimately expressed feminine sexual drive is widely accepted. The family, therefore, becomes also a sexual joint venture.

9. ***Urbanization, communication, and transportation*** multiplied the number of encounters between men and women and the opportunities for economic, sexual, and emotional interactions. For the first time in centuries, women were able to judge and compare their male partners to others in every conceivable way. Increasingly, women choose to opt out of relationships which they deem to be dysfunctional or inadequate. More than three quarters of all divorces in the West are initiated by women.

10. Women became ***aware of their needs***, priorities, preferences, wishes and, in general, of their proper emotions. They cast off emotions and thought patterns inculcated in them by patriarchal societies and cultures and sustained through peer pressure.

11. The ***roles and traditional functions of the family*** were gradually eroded and transferred to other social agents. Even functions such as emotional support, psychosexual interactions, and child rearing are often relegated to outside "subcontractors".

Emptied of these functions and of inter-generational interactions, the nuclear family was reduced to a dysfunctional shell, a hub of rudimentary communication between its remaining members, a dilapidated version of its former self.

The traditional roles of women and their alleged character, propensities, and inclinations were no longer useful in this new environment. This led women to search for a new definition, to find a new niche. They were literally driven out of their homes by its functional disappearance.

12. In parallel, modern medicine ***increased women's life expectancy***, prolonged their child bearing years, improved their health dramatically, and preserved their beauty through a myriad newfangled techniques. This gave women a new lease on life.

In this new world, women are far less likely to die at childbirth or to look decrepit at 30 years of age. They are able to time their decision to bring a child to the world, or to refrain from doing so passively or actively (by having an abortion).

Women's growing control over their body - which has

been objectified, reviled and admired for millennia by men – is arguably one of the most striking features of the feminine revolution. It allows women to rid themselves of deeply embedded masculine values, views and prejudices concerning their physique and their sexuality.

13. Finally, the legal system and other ***social and economic structures adapted*** themselves to reflect many of the abovementioned sea changes. Being inertial and cumbersome, they reacted slowly, partially and gradually. Still, they did react. Any comparison between the situation just twenty years ago and today is likely to reveal substantial differences.

But this revolution is only a segment of a much larger one.

In the past, the axes with which we opened our discussion were closely and seemingly inextricably intertwined. The Economic, the Social and the Emotional (the axis invested in the preservation of societal mores and ideologies) formed one amalgam – and the Private, the Familial and the Utilitarian-Rational constituted another.

Thus, society encouraged people to get married because it was ***emotionally*** committed to a societal-economic ideology which infused the family with sanctity, an historical mission and grandeur.

Notwithstanding ***social views*** of the family, the majority of men and women got married out of a cold pecuniary calculation that regarded the family as a functioning ***economic unit***, within which the individual effectively transacts. Forming families was the most efficient way known to generate wealth, accumulate it and transfer it across time and space to future generations.

These traditional confluences of axes were diametrically reversed in the last few decades. The Social and Economic axes together with the Utilitarian (Rational) axis and the Emotional axis are now aligned with the Private and Familial axes.

Put simply, nowadays society encourages people to get married because it wishes to maximize their economic output. But most people do not see it this way. They regard the family as a safe emotional haven.

The distinction between past and present may be subtle but it is by no means trivial. In the past, people used to express emotions in formulaic, socially dictated ways, wearing their beliefs and ideologies on their sleeves as it were. The family was one of these modes of expression. But really, it served as a mere economic unit, devoid of any emotional involvement and content.

Today, people are looking to the family for emotional sustenance (romantic love, companionship) and not as an instrument to enhance their social and economic standing. Creating a family is no longer the way to maximize utility.

But these new expectations have destabilized the family. Both men and women seek emotional comfort and true companionships within it and when they fail to find it, use their newfound self-sufficiency and freedoms and divorce.

To summarize:

Men and women used to look to the family for economic and social support. Whenever the family failed as an economic and social launching pad – they lost interest in it and began looking for extramarital alternatives. This trend of disintegration was further enhanced by technological innovation which encouraged self-

sufficiency and unprecedented social segmentation. It was society at large which regarded families emotionally, as part of the prevailing ideology.

The roles have reversed. Society now tends to view the family in a utilitarian-rational light, as an efficient mode of organization of economic and social activity. And while in the past, its members regarded the family mainly in a utilitarian-rational manner (as a wealth producing unit) – now they want more: emotional support and companionship.

In the eyes of the individual, families were transformed from economic production units to emotional powerhouses. In the eyes of society, families were transformed from elements of emotional and spiritual ideology to utilitarian-rational production units.

This shift of axes and emphases is bridging the traditional gap between men and women. Women had always accentuated the emotional side of being in a couple and of the family. Men always emphasized the convenience and the utility of the family. This gap used to be unbridgeable. Men acted as conservative social agents, women as revolutionaries. What is happening to the institution of the family today is that the revolution is becoming mainstream.

Fascism

Nazism - and, by extension, fascism (though the two are by no means identical) - amounted to permanent revolutionary civil wars. Fascist movements were founded, inter alia, on negations and on the militarization of politics. Their raison d'etre and vigor were derived from their rabid opposition to liberalism, communism,

conservatism, rationalism, and individualism and from exclusionary racism. It was a symbiotic relationship - self-definition and continued survival by opposition.

Yet, all fascist movements suffered from fatal - though largely preconcerted - ideological tensions. In their drive to become broad, pluralistic, churches (a hallmark of totalitarian movements) - these secular religions often offered contradictory doctrinal fare.

I. **Renewal vs. Destruction**

The first axis of tension was between renewal and destruction. Fascist parties invariably presented themselves as concerned with the pursuit and realization of a utopian program based on the emergence of a "new man" (in Germany it was a mutation of Nietzsche's Superman). "New", "young", "vital", and "ideal" were pivotal keywords. Destruction was both inevitable (i.e., the removal of the old and corrupt) and desirable (i.e., cathartic, purifying, unifying, and ennobling).

Yet fascism was also nihilistic. It was bipolar: either utopia or death. Hitler instructed Speer to demolish Germany when his dream of a thousand-years Reich crumbled. This mental splitting mechanism (all bad or all good, black or white) is typical of all utopian movements. Similarly, Stalin (not a fascist) embarked on orgies of death and devastation every time he faced an obstacle.

This ever-present tension between construction, renewal, vitalism, and the adoration of nature - and destruction, annihilation, murder, and chaos - was detrimental to the longevity and cohesion of fascist fronts.

II. **Individualism vs. Collectivism**

A second, more all-pervasive, tension was between self-assertion and what Griffin and Payne call "self transcendence". Fascism was a cult of the Promethean will, of the super-man, above morality, and the shackles of the pernicious materialism, egalitarianism, and rationalism. It was demanded of the New Man to be willful, assertive, determined, self-motivating, a law unto himself. The New Man, in other words, was supposed to be contemptuously a-social (though not anti-social).

But here, precisely, arose the contradiction. It was society which demanded from the New Man certain traits and the selfless fulfillment of certain obligations and observance of certain duties. The New Man was supposed to transcend egotism and sacrifice himself for the greater, collective, good. In Germany, it was Hitler who embodied this intolerable inconsistency. On the one hand, he was considered to be the reification of the will of the nation and its destiny. On the other hand, he was described as self-denying, self-less, inhumanly altruistic, and a temporal saint martyred on the altar of the German nation.

This doctrinal tension manifested itself also in the economic ideology of fascist movements.

Fascism was often corporatist or syndicalist (and always collectivist). At times, it sounded suspiciously like Leninism-Stalinism. Payne has this to say:

"What fascist movements had in common was the aim of a new functional relationship for the functional and economic systems, eliminating the autonomy (or, in some proposals, the existence) of large-scale capitalism and modern industry, altering the nature of social status, and creating a new communal or reciprocal productive relationship through new priorities, ideals, and extensive

governmental control and regulation. The goal of accelerated economic modernization was often espoused ..."
(Stanley G. Payne - A History of Fascism 1914-1945 - University of Wisconsin Press, 1995 - p. 10)

Still, private property was carefully preserved and property rights meticulously enforced. Ownership of assets was considered to be a mode of individualistic expression (and, thus, "self-assertion") not to be tampered with.

This second type of tension transformed many of the fascist organizations into chaotic, mismanaged, corrupt, and a-moral groups, lacking in direction and in self-discipline. They swung ferociously between the pole of malignant individualism and that of lethal collectivism.

III. **Utopianism vs. Struggle**

Fascism was constantly in the making, eternally half-baked, subject to violent permutations, mutations, and transformations. Fascist movements were "processual" and, thus, in permanent revolution (rather, since fascism was based on the negation of other social forces, in permanent civil war). It was a utopian movement in search of a utopia. Many of the elements of a utopia were there - but hopelessly mangled and mingled and without any coherent blueprint.

In the absence of a rational vision and an orderly plan of action - fascist movements resorted to irrationality, the supernatural, the magical, and to their brand of a secular religion. They emphasized the way -rather than the destination, the struggle - rather than the attainment, the battle - rather than the victory, the effort - rather than the

outcome, or, in short - the Promethean and the Thanatean rather than the Vestal, the kitschy rather than the truly aesthetic.

IV. **Organic vs. Decadent**

Fascism emphasized rigid social structures - supposedly the ineluctable reflections of biological strictures. As opposed to politics and culture - where fascism was revolutionary and utopian - socially, fascism was reactionary, regressive, and defensive. It was pro-family. One's obligations, functions, and rights were the results of one's "place in society". But fascism was also male chauvinistic, adolescent, latently homosexual ("the cult of virility", the worship of the military), somewhat pornographic (the adoration of the naked body, of "nature", and of the young), and misogynistic. In its horror of its own repressed androgynous "perversions" (i.e., the very decadence it claimed to be eradicating), it employed numerous defense mechanisms (e.g., reaction formation and projective identification). It was gender dysphoric and personality disordered.

V. **Elitism vs. Populism**

All fascist movements were founded on the equivalent of the Nazi Fuhrerprinzip. The leader - infallible, indestructible, invincible, omnipotent, omniscient, sacrificial - was a creative genius who embodied as well as interpreted the nation's quiddity and fate. His privileged and unerring access to the soul of the fascist movement, to history's grand designs, and to the moral and aesthetic principles underlying it all - made him indispensable and worthy of blind and automatic obedience.

This strongly conflicted with the unmitigated, all-

inclusive, all-pervasive, and missionary populism of fascism. Fascism was not egalitarian (see section above). It believed in a fuzzily role-based and class-based system. It was misogynistic, against the old, often against the "other" (ethnic or racial minorities). But, with these exceptions, it embraced one and all and was rather meritocratic. Admittedly, mobility within the fascist parties was either the result of actual achievements and merit or the outcome of nepotism and cronyism - still, fascism was far more egalitarian than most other political movements.

This populist strand did not sit well with the overweening existence of a Duce or a Fuhrer. Tensions erupted now and then but, overall, the Fuhrerprinzip held well.

Fascism's undoing cannot be attributed to either of these inherent contradictions, though they made it brittle and clunky. To understand the downfall of this meteoric latecomer - we must look elsewhere, to the 17th and 18th century.

Friendship

What are friends for and how can a friendship be tested? By behaving altruistically, would be the most common answer and by sacrificing one's interests in favour of one's friends. Friendship implies the converse of egoism, both psychologically and ethically. But then we say that the dog is "man's best friend". After all, it is characterized by unconditional love, by unselfish behaviour, by sacrifice, when necessary. Isn't this the epitome of friendship? Apparently not. On the one hand, the dog's friendship seems to be unaffected by long term calculations of personal benefit. But that is not to say that it is not affected by calculations of a short-term nature. The owner,

after all, looks after the dog and is the source of its subsistence and security. People – and dogs – have been known to have sacrificed their lives for less. The dog is selfish – it clings and protects what it regards to be its territory and its property (including – and especially so - the owner). Thus, the first condition, seemingly not satisfied by canine attachment is that it be reasonably unselfish.

There are, however, more important conditions:

a. For a real friendship to exist – at least one of the friends must be a conscious and intelligent entity, possessed of mental states. It can be an individual, or a collective of individuals, but in both cases this requirement will similarly apply.

b. There must be a minimal level of identical mental states between the terms of the equation of friendship. A human being cannot be friends with a tree (at least not in the fullest sense of the word).

c. The behaviour must not be deterministic, lest it be interpreted as instinct driven. A conscious choice must be involved. This is a very surprising conclusion: the more "reliable", the more "predictable" – the less appreciated. Someone who reacts identically to similar situations, without dedicating a first, let alone a second thought to it – his acts would be depreciated as "automatic responses".

For a pattern of behaviour to be described as "friendship", these four conditions must be met: diminished egoism, conscious and intelligent agents, identical mental states (allowing for the communication of the friendship) and

non-deterministic behaviour, the result of constant decision making.

A friendship can be – and often is – tested in view of these criteria. There is a paradox underlying the very notion of testing a friendship. A real friend would never test his friend's commitment and allegiance. Anyone who puts his friend to a test (deliberately) would hardly qualify as a friend himself. But circumstances can put ALL the members of a friendship, all the individuals (two or more) in the "collective" to a test of friendship. Financial hardship encountered by someone would surely oblige his friends to assist him – even if he himself did not take the initiative and explicitly asked them to do so. It is life that tests the resilience and strength and depth of true friendships – not the friends themselves.

In all the discussions of egoism versus altruism – confusion between self-interest and self-welfare prevails. A person may be urged on to act by his self-interest, which might be detrimental to his (long-term) self-welfare. Some behaviours and actions can satisfy short-term desires, urges, wishes (in short: self-interest) – and yet be self- destructive or otherwise adversely effect the individual's future welfare. (Psychological) Egoism should, therefore, be re-defined as the active pursuit of self- welfare, not of self-interest. Only when the person caters, in a balanced manner, to both his present (self-interest) and his future (self-welfare) interests – can we call him an egoist. Otherwise, if he caters only to his immediate self-interest, seeks to fulfil his desires and disregards the future costs of his behaviour – he is an animal, not an egoist.

Joseph Butler separated the main (motivating) desire from the desire that is self- interest. The latter cannot exist

without the former. A person is hungry and this is his desire. His self-interest is, therefore, to eat. But the hunger is directed at eating – not at fulfilling self-interests. Thus, hunger generates self-interest (to eat) but its object is eating. Self-interest is a second order desire that aims to satisfy first order desires (which can also motivate us directly).

This subtle distinction can be applied to disinterested behaviours, acts, which seem to lack a clear self-interest or even a first order desire. Consider why do people contribute to humanitarian causes? There is no self-interest here, even if we account for the global picture (with every possible future event in the life of the contributor). No rich American is likely to find himself starving in Somalia, the target of one such humanitarian aid mission.

But even here the Butler model can be validated. The first order desire of the donator is to avoid anxiety feelings generated by a cognitive dissonance. In the process of socialization we are all exposed to altruistic messages. They are internalized by us (some even to the extent of forming part of the almighty superego, the conscience). In parallel, we assimilate the punishment inflicted upon members of society who are not "social" enough, unwilling to contribute beyond that which is required to satisfy their self interest, selfish or egoistic, non-conformist, "too" individualistic, "too" idiosyncratic or eccentric, etc. Completely not being altruistic is "bad" and as such calls for "punishment". This no longer is an outside judgement, on a case by case basis, with the penalty inflicted by an external moral authority. This comes from the inside: the opprobrium and reproach, the guilt, the punishment (read Kafka). Such impending

punishment generates anxiety whenever the person judges himself not to have been altruistically "sufficient". It is to avoid this anxiety or to quell it that a person engages in altruistic acts, the result of his social conditioning. To use the Butler scheme: the first-degree desire is to avoid the agonies of cognitive dissonance and the resulting anxiety. This can be achieved by committing acts of altruism. The second-degree desire is the self-interest to commit altruistic acts in order to satisfy the first-degree desire. No one engages in contributing to the poor because he wants them to be less poor or in famine relief because he does not want others to starve. People do these apparently selfless activities because they do not want to experience that tormenting inner voice and to suffer the acute anxiety, which accompanies it. Altruism is the name that we give to successful indoctrination. The stronger the process of socialization, the stricter the education, the more severely brought up the individual, the grimmer and more constraining his superego – the more of an altruist he is likely to be. Independent people who really feel comfortable with their selves are less likely to exhibit these behaviours.

This is the self-interest of society: altruism enhances the overall level of welfare. It redistributes resources more equitably, it tackles market failures more or less efficiently (progressive tax systems are altruistic), it reduces social pressures and stabilizes both individuals and society. Clearly, the self-interest of society is to make its members limit the pursuit of their own self-interest? There are many opinions and theories. They can be grouped into:

a. Those who see an inverse relation between the two: the more satisfied the self interests of the

individuals comprising a society – the worse off that society will end up. What is meant by "better off" is a different issue but at least the commonsense, intuitive, meaning is clear and begs no explanation. Many religions and strands of moral absolutism espouse this view.

b. Those who believe that the more satisfied the self-interests of the individuals comprising a society – the better off this society will end up. These are the "hidden hand" theories. Individuals, which strive merely to maximize their utility, their happiness, their returns (profits) – find themselves inadvertently engaged in a colossal endeavour to better their society. This is mostly achieved through the dual mechanisms of market and price. Adam Smith is an example (and other schools of the dismal science).

c. Those who believe that a delicate balance must exist between the two types of self-interest: the private and the public. While most individuals will be unable to obtain the full satisfaction of their self-interest – it is still conceivable that they will attain most of it. On the other hand, society must not fully tread on individuals' rights to self-fulfilment, wealth accumulation and the pursuit of happiness. So, it must accept less than maximum satisfaction of its self-interest. The optimal mix exists and is, probably, of the minimax type. This is not a zero sum game and society and the individuals comprising it can maximize their worst outcomes.

The French have a saying: "Good bookkeeping – makes for a good friendship". Self-interest, altruism and the

interest of society at large are not necessarily incompatible.

Future and Futurology

We construct maps of the world around us, using cognitive models, organizational principles, and narratives that we acquire in the process of socialization. These are augmented by an incessant bombardment of conceptual, ideational, and ideological frameworks emanating from the media, from peers and role models, from authority figures, and from the state. We take our universe for granted, an immutable and inevitable entity. It is anything but. Only change and transformation are guaranteed constants - the rest of it is an elaborate and anxiety-reducing illusion.

Consider these self-evident "truths" and "certainties":

1. After centuries of warfare, ***Europe is finally pacified***. War in the foreseeable future is not in store. The European Union heralds not only economic prosperity but also long-term peaceful coexistence.

Yet, Europe faces a serious identity crisis. Is it Christian in essence or can it also encompass the likes of an increasingly-Muslim Turkey? Is it a geographical (continental) entity or a cultural one? Is enlargement a time bomb, incorporating as it does tens of millions of new denizens, thoroughly demoralized, impoverished, and criminalized by decades of Soviet repression? How likely are these tensions to lead not only to the disintegration of the EU but to a new war between, let's say Russia and Germany, or Italy and Austria, or Britain and France? Ridiculous? Revisit your history books.

Read more about Europe after communism - click HERE to download the e-book "The Belgian Curtain".

Many articles about Europe and the European Union - click HERE and HERE to read them.

2. The ***United States*** is the only superpower and a budding Empire. In 50 years time it may be challenged by China and India, but until then it stands invincible. Its economic growth prospects are awesome.

Yet, the USA faces enormous social torsion brought about by the polarization of its politics and by considerable social and economic tensions and imbalances. The deterioration in its global image and its growing isolation contribute to a growing paranoia and jingoism. While each of these dimensions is nothing new, the combination is reminiscent of the 1840s-1850s, just prior to the Civil War.

Is the United States headed for limb-tearing inner conflict and disintegration?

This scenario, considered by many implausible if not outlandish, is explored in a series of articles - click HERE to read them.

3. The ***Internet***, hitherto a semi-anarchic free-for-all, is likely to go through the same cycle experienced by other networked media, such as the radio and the telegraph. In other words, it will end up being both heavily regulated and owned by commercial interests. Throwbacks to its early philosophy of communal cross-pollination and exuberant exchange of ideas, digital goods, information, and opinion will dwindle and vanish. The Internet as a horizontal network where all nodes are equipotent will be replaced by a vertical, hierarchical, largely corporate

structure with heavy government intrusion and oversight.

Read essays about the future of the Internet - click HERE.

4. The period between 1789 (the French Revolution) and 1989 (the demise of Communism) is likely to be remembered as a liberal and atheistic intermezzo, separating two vast eons of religiosity and conservatism. God is now being rediscovered in every corner of the Earth and with it intolerance, prejudice, superstition, as well as strong sentiments against science and the values of the Enlightenment. We are on the threshold of the ***New Dark Ages***.

Read about the New Dark Ages - click HERE.

5. The quasi-religious, cult-like fad of ***Environmentalism*** is going to be thoroughly debunked. Read a detailed analysis of why and how - click HERE.

6. Our view of ***Western liberal democracy*** as a panacea applicable to all at all times and in all places will undergo a revision in light of accumulated historical evidence. Democracy seems to function well in conditions of economic and social stability and growth. When things go awry, however, democratic processes give rise to Hitlers and Milosevices (both elected with overwhelming majorities multiple times).

The gradual disillusionment with parties and politicians will lead to the re-emergence of collectivist, centralized and authoritarian polities, on the one hand and to the rise of anarchist and multifocal governance models, on the other hand.

More about democracy in this article -click HERE.

More about anarchism in this article -click HERE.

7. The ingenious principle of ***limited liability*** and the legal entity known as the ***corporation*** have been with us for more than three centuries and served magnificently in facilitating the optimal allocation of capital and the diversification of risk. Yet, the emergence of sharp conflicts of interest between a class of professional managers and the diffuse ownership represented by (mainly public) shareholders - known as the agent-principal problem - spell the end of both and the dawn of a new era.

Read about the Agent-Principal Conundrum in this article - click HERE.

Read about risk and moral hazard in this article - click HERE.

8. As our understanding of the brain and our knowledge of genetics deepen, the idea of ***mental illness*** is going to be discarded as so much superstition and myth. It is going to replaced with medical models of brain dysfunctions and maladaptive gene expressions. Abnormal psychology is going to be thoroughly medicalized and reduced to underlying brain structures, biochemical processes and reactions, bodily mechanisms, and faulty genes.

Read more about this brave new world in this article - click HERE.

9. As offices and homes merge, mobility increases, wireless access to data is made available anywhere and everywhere, computing becomes ubiquitous, the distinction between ***work and leisure*** will vanish.

Read more about the convergence and confluence of labor

and leisure in this article - click HERE.

10. Our privacy is threatened by a host of intrusive Big Brother technologies coupled with a growing paranoia and siege mentality in an increasingly hostile world, populated by hackers, criminals, terrorists, and plain whackos. Some countries - such as China - are trying to suppress political dissent by disruptively prying into their citizens' lives. We have already incrementally surrendered large swathes of our hitherto private domain in exchange for fleeting, illusory, and usually untenable personal "safety".

As we try to reclaim this lost territory, we are likely to give rise to ***privacy industries***: computer anonymizers, safe (anonymous) browsers, face transplants, electronic shields, firewalls, how-to-vanish-and-start-a-new-life-elsewhere consultants and so on.

Read more about the conflict between private and public in this article - click HERE.

11. As the population ages in the developed countries of the West, ***crime*** is on the decline there. But, as if to maintain the homeostasis of evil, it is on the rise in poor and developing countries. A few decades from now, violent and physical property crimes will so be rare in the West as to become newsworthy and so common in the rest of the world as to go unnoticed.

Should we legalize some "crimes"? - Read about it in this article - click HERE.

12. In historical terms, our ***megalopolises and conurbations*** are novelties. But their monstrous size makes them dependent on two flows: (1) of goods and surplus labor from the world outside (2) of services and waste products to their environment.

There is a critical mass beyond which this bilateral exchange is unsustainable. Modern cities are, therefore, likely to fragment into urban islands: gated communities, slums, strips, technology parks and "valleys", belts, and so on. The various parts will maintain a tenuous relationship but will gradually grow apart.

This will be the dominant strand in a wider trend: the atomization of society, the disintegration of social cells, from the nuclear family to the extended human habitat, the metropolis. People will grow apart, have fewer intimate friends and relationships, and will interact mostly in cyberspace or by virtual means, both wired and wireless.

Read about this inexorable process in this article - click HERE.

13. The commodity of the future is not raw or even processed information. The commodity of the future is guided and structured access to information repositories and databases. Search engines like Google and Yahoo already represent enormous economic value because they serve as the gateway to the Internet and, gradually, to the Deep Web. They not only list information sources but make implicit decisions for us regarding their relative merits and guide us inexorably to selections driven by impersonal, value-laden, judgmental algorithms. Search engines are one example of active, semi-intelligent information gateways.

Read more about the Deep Web in this article - click HERE.

14. Inflation and the business cycle seem to have been conquered for good. In reality, though, we are faced with

the distinct possibility of a global depression coupled with soaring inflation (known together as stagflation). This is owing to enormous and unsustainable imbalances in global savings, debt, and capital and asset markets.

Still, economists are bound to change their traditional view of inflation. Japan's experience in 1990-2006 taught us that better moderate inflation than deflation.

Read about the changing image of inflation in this article - click HERE.

Note - How to Make a Successful Prediction

Many futurologists - professional (Toffler) and less so (Naisbitt) - tried their hand at predicting the future. They proved quite successful at foretelling major trends but not as lucky in delineating their details. This is because, inevitably, every futurologist has to resort to crude tools such as extrapolation. The modern day versions of the biblical prophets are much better informed - and this, precisely, seems to be the problem. The informational clutter obscures the outlines of the more pertinent elements.

The futurologist has to divine which of a host of changes which occur in his times and place ushers in a new era. Since the speed at which human societies change has radically accelerated, the futurologist's work has become more compounded and less certain.

It is better to stick to truisms, however banal. True and tried is the key to successful (and, therefore, useful) predictions. What can we rely upon which is immutable and invariant, not dependent on cultural context, technological level, or geopolitical developments?

Human nature, naturally.

Yet, the introduction of human nature into the prognostic equation may further complicate it. Human nature is, arguably, the most complex thing in the universe. It is characteristically unpredictable and behaviourally stochastic. It is not the kind of paradigm conducive to clear-cut, unequivocal, unambiguous forecasts.

This is why it is advisable to isolate two or three axes around which human nature - or its more explicit manifestations - revolves. These organizational principles must possess comprehensive explanatory powers, on the one hand and exhibit some kind of synergy, on the other hand.

I propose such a trio of dimensions: Individuality, Collectivism and Time.

Human yearning for uniqueness and idiosyncrasy, for distinction and self sufficiency, for independence and self expression commences early, in one's formative years, in the form of the twin psychological processes of Individuation and Separation

Collectivism is the human propensity to agglomerate, to stick together, to assemble, the herd instincts and the group behaviours.

Time is the principle which bridges and links individual and society. It is an emergent property of society. In other words, it arises only when people assemble together and have the chance to compare themselves to others. I am not referring to Time in the physical sense. No, I am talking about the more complex, ritualistic, Social Time, derived from individual and collective memory (biography and history) and from intergenerational interactions.

Individuals are devoid and bereft of any notions or feelings of Social Time when they lack a basis for comparison with others and access to the collective memory.

In this sense, people are surprisingly like subatomic particles - both possess no "Time" property. Particles are Time symmetric in the sense that the equations describing their behaviour and evolution are equally valid backwards and forward in Time. The introduction of negative (backward flowing) Time does not alter the results of computations.

It is only when masses of particles are observed that an asymmetry of Time (a directional flow) becomes discernible and relevant to the description of reality. In other words, Time "erupts" or "emerges" as the complexity of physical systems increases (see "Time asymmetry Re-Visited by the same author, 1983, available through UMI. Abstract in: http://samvak.tripod.com/time.html).

Mankind's history (past), its present and, in all likelihood, its future are characterized by an incessant struggle between these three principles. One generation witnesses the successful onslaught of individualism and declares, with hubris, the end of history. Another witnesses the "Revolt of the (collective) Masses" and produces doomsayers such as Jose Ortega y Gasset.

The 20th century was and is no exception. True, due to accelerated technological innovation, it was the most "visible" and well-scrutinized century. Still, as Barbara Tuchman pointedly titled her masterwork, it was merely a Distant Mirror of other centuries. Or, in the words of Proverbs: "Whatever was, it shall be again".

The 20th century witnessed major breakthroughs in both technological progress and in the dissemination of newly invented technologies, which lent succor to individualism.

This is a new development. Past technologies assisted in forging alliances and collectives. Agricultural technology encouraged collaboration, not individuation, differentiation or fragmentation.

Not so the new technologies. It would seem that the human race has opted for increasing isolation to be fostered by TELE-communication. Telecommunications gives the illusion of on-going communication but without preserving important elements such as direct human contact, replete with smells, noises, body language and facial expressions. Telecommunications reduces communication to the exchange of verbal or written information, the bare skeleton of any exchange.

The advent of each new technology was preceded by the development of a social tendency or trend. For instance: computers packed more and more number crunching power because business wanted to downsize and increase productivity.

The inventors of the computer explicitly stated that they wanted it to replace humans and are still toying with the idea of artificial intelligence, completely substituting for humans. The case of robots as substitutes for humans is even clearer.

These innovations revolutionized the workplace. They were coupled with "lean and mean" management theories and management fads. Re-engineering, downsizing, just in time inventory and production management, outsourcing - all emphasized a trimming of the work force. Thus,

whereas once, enterprises were proud of the amount of employment which they generated - today it is cause for shame. This psychological shift is no less than misanthropic.

This misanthropy manifests itself in other labour market innovations: telecommuting and flexiwork, for instance - but also in forms of distance interaction, such as distant learning.

As with all other social sea changes, the language pertaining to the emotional correlates and the motivation behind these shifts is highly euphemistic. Where interpersonal communication is minimized - it is called telecommunications. Where it is abolished it is amazingly labelled "interactivity"!

We are terrified of what is happening - isolation, loneliness, alienation, self absorption, self sufficiency, the disintegration of the social fabric - so we give it neutral or appealing labels, negating the horrific content. Computers are "user-friendly", when we talk to our computer we are "interacting", and the solitary activity of typing on a computer screen is called "chatting".

We need our fellow beings less and less. We do not see them anymore, they had become gradually transparent, reduced to bodiless voices, to incorporeal typed messages. Humans are thus dehumanized, converted to bi-dimensional representations, to mere functions. This is an extremely dangerous development. Already people tend to confuse reality with its representation through media images. Actors are misperceived to be the characters that they play in a TV series, wars are fought with video game-like elegance and sleekness.

Even social functions which used to require expertise - and, therefore, the direct interaction of humans - can today be performed by a single person, equipped with the right hardware and software.

The internet is the epitome and apex of this last trend.

Read my essay - ***Internet A Medium or a Message***.

Still, here I would like to discuss an astounding revolution that goes largely unnoticed: personal publishing.

Today, anyone, using very basic equipment can publish and unleash his work upon tens of millions of unsuspecting potential readers. Only 500 years ago this would have been unimaginable even as a fantasy. Only 50 years ago this would have been attributed to a particularly active imagination. Only 10 years ago, it cost upward of 50,000 USD to construct a website.

The consequences of this revolution are unfathomable. It surpasses the print revolution in its importance. Ultimately, personal publishing - and not the dissemination of information or e-commerce - will be the main use of the internet, in my view.

Still, in the context of this article, I wish to emphasize the solipsism and the solitude entailed by this invention. The most labour intensive, human interaction: the authorship of a manuscript, its editing and publishing, will be stripped of all human involvement, barring that of the author. Granted, the author can correspond with his audience more easily but this, again, is the lonely, disembodied kind of "contact".

Transportation made humanity more mobile, it fractured and fragmented all social cells (including the nuclear

family) and created malignant variants of social structures. The nuclear family became the extended nuclear family with a few parents and non-blood-related children.

Multiple careers, multiple sexual and emotional partners, multiple families, multiple allegiances and loyalties, seemed, at first, to be a step in the right direction of pluralism. But humans need certainty and, where they miss it, a backlash develops.

This backlash is attributed to the human need to find stability, predictability, emotional dependability and commitment where there is none. This is done by faking the real thing, by mutating, by imitating and by resenting anything which threatens the viability of the illusion.

Patriotism mutates to nationalism, racism or Volkism. Religion is metamorphesizes to ideology, cults, or sects. Sex is mistaken for love, love becomes addictive or obsessive dependence. Other addictions (workaholism, alcoholism, drug abuse and a host of other, hitherto unheard of, obsessive compulsive disorders) provide the addict with meaning and order in his life.

The picture is not rosier on the collectivist side of the fence.

Each of the aforementioned phenomena has a collectivist aspect or parallel. This duality permeates the experience of being human. Humans are torn between these two conflicting instincts and by way of socialization, imitation and assimilation, they act herd-like, en masse. Weber analysed the phenomenon of leadership, that individual which defines the parameters for the behaviour of the herd, the "software", so to speak. He exercises his

authority through charismatic and bureaucratic mechanisms.

Thus, the Internet has a collectivist aspect. It is the first step towards a collective brain. It maintains the memory of the race, conveys its thought impulses, directs its cognitive processes (using its hardware and software constraints as guideposts).

Telecommunication and transportation did eliminate the old, well rooted concepts of space-time (as opposed to what many social thinkers say) - but there was no philosophical or conceptual adaptation to be made. The difference between using a car and using a quick horse was like the difference between walking on foot and riding that horse. The human mind was already flexible enough to accommodate this.

What telecommunications and transportation did do was to minimize the world to the scope of a "global village" as predicted by Marshal McLuhan and others. A village is a cohesive social unit and the emphasis should be on the word "social". Again the duality is there : the technologies that separate - unite.

This Orwellian NewSpeak is all pervasive and permeates the very fabric of both current technologies and social fashions. It is in the root of the confusion which constantly leads us to culture-wars. In this century culture wars were waged by religion-like ideologies (Communism, Nazism, Nationalism and - no comparison intended - Environmentalism, Capitalism, Feminism and Multi-Culturalism). These mass ideologies (the quantitative factor enhanced their religious tint) could not have existed in an age with no telecommunication and speedy transport. Yet, the same advantages were available

(in principle, over time, after a fight) to their opponents, who belonged, usually, to the individualistic camp. A dissident in Russia uses the same tools to disintegrate the collective as the apparatchik uses to integrate it. Ideologies clashed in the technological battlefields and were toppled by the very technology which made them possible. This dialectic is interesting because this is the first time in human history that none of the sides could claim a monopoly over technology. The economic reasons cited for the collapse of Communism, for instance, are secondary: what people were really protesting was lack of access to technology and to its benefits. Consumption and Consumerism are by products of the religion of Science.

Far from the madding poles of the human dichotomy an eternal, unifying principle was long neglected.

Humans will always fight over which approach should prevail : individuality or collectivism. Humans will never notice how ambiguous and equivocal their arguments and technology are. They will forever fail to behold the seeds of the destruction of their camp sawn by their very own technology, actions and statements. In short: humans will never admit to being androgynous or bisexual. They will insist upon a clear sexual identity, this strong the process of differentiation is.

But the principle that unites humans, no matter which camp they might belong to, when, or where is the principle of Time.

Humans crave Time and consume Time the way carnivores consume meat and even more voraciously. This obsession with Time is a result of the cognitive acknowledgement of death. Humans seems to be the only sentient animal which knows that it one day shall end.

This is a harrowing thought. It is impossible to cope with it but through awesome mechanisms of denial and repression. In this permanent subconscious warfare, memory is a major weapon and the preservation of memory constitutes a handy illusion of victory over death. Admittedly, memory has real adaptive and survival value.

He who remembers dangers will, undoubtedly live longer, for instance.

In human societies, memory used to be preserved by the old. Until very recently, books were a rare and very expensive commodity virtually unavailable to the masses. Thus humans depended upon their elders to remember and to pass on the store of life saving and life preserving data.

This dependence made social cohesiveness, interdependence and closeness inevitable. The young lived with the old (who also owned the property) and had to continue to do so in order to survive. Extended families, settlements led by the elders of the community and communities were but a few collectivist social results.

With the dissemination of information and knowledge, the potential of the young to judge their elders actions and decisions has finally materialized.

The elders lost their advantage (memory). Being older, they were naturally less endowed than the young. The elders were ill-equipped to cope with the kaleidoscopic quality of today's world and its ever changing terms. More nimble, as knowledgeable, more vigorous and with a longer time ahead of them in which they could engage in trial and error learning - the young prevailed.

So did individualism and the technology which was directed by it.

This is the real and only revolution of this century: the reversal of our Time orientation. While hitherto we were taught to respect the old and the past - we are now conditioned to admire the young, get rid of the old and look forward to a future perfect.

G

Games – See: Play

Game Theory (Applications in Economics)

Consider this:

Could Western management techniques be successfully implemented in the countries of Central and Eastern Europe (CEE)? Granted, they have to be adapted, modified and cannot be imported in their entirety. But their crux, their inalienable nucleus – can this be transported and transplanted in CEE? Theory provides us with a positive answer. Human agents are the same everywhere and are mostly rational. Practice begs to differ. Basic concepts such as the money value of time or the moral and legal meaning of property are non existent. The legal, political and economic environments are all unpredictable. As a result, economic players will prefer to maximize their utility immediately (steal from the workplace, for instance) – than to wait for longer term (potentially, larger) benefits. Warrants (stock options) convertible to the company's shares constitute a strong workplace incentive in the West (because there is an horizon and they increase the employee's welfare in the long term). Where the future is speculation – speculation withers. Stock options or a small stake in his firm, will only encourage the employee to blackmail the other shareholders by paralysing the firm, to abuse his new position and will be interpreted as immunity, conferred from above, from the consequences of illegal activities. The very allocation of options or shares will be interpreted as a sign of weakness, dependence and need, to be exploited. Hierarchy is equated with slavery and

employees will rather harm their long term interests than follow instructions or be subjected to criticism – never mind how constructive. The employees in CEE regard the corporate environment as a conflict zone, a zero sum game (in which the gains by some equal the losses to others). In the West, the employees participate in the increase in the firm's value. The difference between these attitudes is irreconcilable.

Now, let us consider this:

An entrepreneur is a person who is gifted at identifying the unsatisfied needs of a market, at mobilizing and organizing the resources required to satisfy those needs and at defining a long-term strategy of development and marketing. As the enterprise grows, two processes combine to denude the entrepreneur of some of his initial functions. The firm has ever growing needs for capital: financial, human, assets and so on. Additionally, the company begins (or should begin) to interface and interact with older, better established firms. Thus, the company is forced to create its first management team: a general manager with the right doses of respectability, connections and skills, a chief financial officer, a host of consultants and so on. In theory – if all our properly motivated financially – all these players (entrepreneurs and managers) will seek to maximize the value of the firm. What happens, in reality, is that both work to minimize it, each for its own reasons. The managers seek to maximize their short-term utility by securing enormous pay packages and other forms of company-dilapidating compensation. The entrepreneurs feel that they are "strangled", "shackled", "held back" by bureaucracy and they "rebel". They oust the management, or undermine it, turning it into an ineffective representative relic. They

assume real, though informal, control of the firm. They do so by defining a new set of strategic goals for the firm, which call for the institution of an entrepreneurial rather than a bureaucratic type of management. These cycles of initiative-consolidation-new initiative-revolution-consolidation are the dynamos of company growth. Growth leads to maximization of value. However, the players don't know or do not fully believe that they are in the process of maximizing the company's worth. On the contrary, consciously, the managers say: "Let's maximize the benefits that we derive from this company, as long as we are still here." The entrepreneurs-owners say: "We cannot tolerate this stifling bureaucracy any longer. We prefer to have a smaller company – but all ours." The growth cycles forces the entrepreneurs to dilute their holdings (in order to raise the capital necessary to finance their initiatives). This dilution (the fracturing of the ownership structure) is what brings the last cycle to its end. The holdings of the entrepreneurs are too small to materialize a coup against the management. The management then prevails and the entrepreneurs are neutralized and move on to establish another start-up. The only thing that they leave behind them is their names and their heirs.

We can use Game Theory methods to analyse both these situations. Wherever we have economic players bargaining for the allocation of scarce resources in order to attain their utility functions, to secure the outcomes and consequences (the value, the preference, that the player attaches to his outcomes) which are right for them – we can use Game Theory (GT).

A short recap of the basic tenets of the theory might be in order.

GT deals with interactions between agents, whether conscious and intelligent – or Dennettic. A Dennettic Agent (DA) is an agent that acts so as to influence the future allocation of resources, but does not need to be either conscious or deliberative to do so. A Game is the set of acts committed by 1 to n rational DA and one a-rational (not irrational but devoid of rationality) DA (nature, a random mechanism). At least 1 DA in a Game must control the result of the set of acts and the DAs must be (at least potentially) at conflict, whole or partial. This is not to say that all the DAs aspire to the same things. They have different priorities and preferences. They rank the likely outcomes of their acts differently. They engage Strategies to obtain their highest ranked outcome. A Strategy is a vector, which details the acts, with which the DA will react in response to all the (possible) acts by the other DAs. An agent is said to be rational if his Strategy does guarantee the attainment of his most preferred goal. Nature is involved by assigning probabilities to the outcomes. An outcome, therefore, is an allocation of resources resulting from the acts of the agents. An agent is said to control the situation if its acts matter to others to the extent that at least one of them is forced to alter at least one vector (Strategy). The Consequence to the agent is the value of a function that assigns real numbers to each of the outcomes. The consequence represents a list of outcomes, prioritized, ranked. It is also known as an ordinal utility function. If the function includes relative numerical importance measures (not only real numbers) – we call it a Cardinal Utility Function.

Games, naturally, can consist of one player, two players and more than two players (n-players). They can be zero (or fixed) - sum (the sum of benefits is fixed and whatever gains made by one of the players are lost by the others).

They can be nonzero-sum (the amount of benefits to all players can increase or decrease). Games can be cooperative (where some of the players or all of them form coalitions) – or non-cooperative (competitive). For some of the games, the solutions are called Nash equilibria. They are sets of strategies constructed so that an agent which adopts them (and, as a result, secures a certain outcome) will have no incentive to switch over to other strategies (given the strategies of all other players). Nash equilibria (solutions) are the most stable (it is where the system "settles down", to borrow from Chaos Theory) – but they are not guaranteed to be the most desirable. Consider the famous "Prisoners' Dilemma" in which both players play rationally and reach the Nash equilibrium only to discover that they could have done much better by collaborating (that is, by playing irrationally). Instead, they adopt the "Paretto-dominated", or the "Paretto-optimal", sub-optimal solution. Any outside interference with the game (for instance, legislation) will be construed as creating a NEW game, not as pushing the players to adopt a "Paretto-superior" solution.

The behaviour of the players reveals to us their order of preferences. This is called "Preference Ordering" or "Revealed Preference Theory". Agents are faced with sets of possible states of the world (=allocations of resources, to be more economically inclined). These are called "Bundles". In certain cases they can trade their bundles, swap them with others. The evidence of these swaps will inevitably reveal to us the order of priorities of the agent. All the bundles that enjoy the same ranking by a given agent – are this agent's "Indifference Sets". The construction of an Ordinal Utility Function is, thus, made simple. The indifference sets are numbered from 1 to n. These ordinals do not reveal the INTENSITY or the

RELATIVE INTENSITY of a preference – merely its location in a list. However, techniques are available to transform the ordinal utility function – into a cardinal one.

A Stable Strategy is similar to a Nash solution – though not identical mathematically. There is currently no comprehensive theory of Information Dynamics. Game Theory is limited to the aspects of competition and exchange of information (cooperation). Strategies that lead to better results (independently of other agents) are dominant and where all the agents have dominant strategies – a solution is established. Thus, the Nash equilibrium is applicable to games that are repeated and wherein each agent reacts to the acts of other agents. The agent is influenced by others – but does not influence them (he is negligible). The agent continues to adapt in this way – until no longer able to improve his position. The Nash solution is less available in cases of cooperation and is not unique as a solution. In most cases, the players will adopt a minimax strategy (in zero-sum games) or maximin strategies (in nonzero-sum games). These strategies guarantee that the loser will not lose more than the value of the game and that the winner will gain at least this value. The solution is the "Saddle Point".

The distinction between zero-sum games (ZSG) and nonzero-sum games (NZSG) is not trivial. A player playing a ZSG cannot gain if prohibited to use certain strategies. This is not the case in NZSGs. In ZSG, the player does not benefit from exposing his strategy to his rival and is never harmed by having foreknowledge of his rival's strategy. Not so in NZSGs: at times, a player stands to gain by revealing his plans to the "enemy". A player can actually be harmed by NOT declaring his strategy or by gaining acquaintance with the enemy's stratagems. The

very ability to communicate, the level of communication and the order of communication – are important in cooperative cases. A Nash solution:

1. Is not dependent upon any utility function;
2. It is impossible for two players to improve the Nash solution (=their position) simultaneously (=the Paretto optimality);
3. Is not influenced by the introduction of irrelevant (not very gainful) alternatives; and
4. Is symmetric (reversing the roles of the players does not affect the solution).

The limitations of this approach are immediately evident. It is definitely not geared to cope well with more complex, multi-player, semi-cooperative (semi-competitive), imperfect information situations.

Von Neumann proved that there is a solution for every ZSG with 2 players, though it might require the implementation of mixed strategies (strategies with probabilities attached to every move and outcome). Together with the economist Morgenstern, he developed an approach to coalitions (cooperative efforts of one or more players – a coalition of one player is possible). Every coalition has a value – a minimal amount that the coalition can secure using solely its own efforts and resources. The function describing this value is super-additive (the value of a coalition which is comprised of two sub-coalitions equals, at least, the sum of the values of the two sub-coalitions). Coalitions can be epiphenomenal: their value can be higher than the combined values of their constituents. The amounts paid to the players equal the value of the coalition and each

player stands to get an amount no smaller than any amount that he would have made on his own. A set of payments to the players, describing the division of the coalition's value amongst them, is the "imputation", a single outcome of a strategy. A strategy is, therefore, dominant, if: (1) each player is getting more under the strategy than under any other strategy and (2) the players in the coalition receive a total payment that does not exceed the value of the coalition. Rational players are likely to prefer the dominant strategy and to enforce it. Thus, the solution to an n-players game is a set of imputations. No single imputation in the solution must be dominant (=better). They should all lead to equally desirable results. On the other hand, all the imputations outside the solution should be dominated. Some games are without solution (Lucas, 1967).

Auman and Maschler tried to establish what is the right payoff to the members of a coalition. They went about it by enlarging upon the concept of bargaining (threats, bluffs, offers and counter-offers). Every imputation was examined, separately, whether it belongs in the solution (=yields the highest ranked outcome) or not, regardless of the other imputations in the solution. But in their theory, every member had the right to "object" to the inclusion of other members in the coalition by suggesting a different, exclusionary, coalition in which the members stand to gain a larger payoff. The player about to be excluded can "counter-argue" by demonstrating the existence of yet another coalition in which the members will get at least as much as in the first coalition and in the coalition proposed by his adversary, the "objector". Each coalition has, at least, one solution.

The Game in GT is an idealized concept. Some of the

assumptions can – and should be argued against. The number of agents in any game is assumed to be finite and a finite number of steps is mostly incorporated into the assumptions. Omissions are not treated as acts (though negative ones). All agents are negligible in their relationship to others (have no discernible influence on them) – yet are influenced by them (their strategies are not – but the specific moves that they select – are). The comparison of utilities is not the result of any ranking – because no universal ranking is possible. Actually, no ranking common to two or n players is possible (rankings are bound to differ among players). Many of the problems are linked to the variant of rationality used in GT. It is comprised of a clarity of preferences on behalf of the rational agent and relies on the people's tendency to converge and cluster around the right answer / move. This, however, is only a tendency. Some of the time, players select the wrong moves. It would have been much wiser to assume that there are no pure strategies, that all of them are mixed. Game Theory would have done well to borrow mathematical techniques from quantum mechanics. For instance: strategies could have been described as wave functions with probability distributions. The same treatment could be accorded to the cardinal utility function. Obviously, the highest ranking (smallest ordinal) preference should have had the biggest probability attached to it – or could be treated as the collapse event. But these are more or less known, even trivial, objections. Some of them cannot be overcome. We must idealize the world in order to be able to relate to it scientifically at all. The idealization process entails the incorporation of gross inaccuracies into the model and the ignorance of other elements. The surprise is that the approximation yields results, which tally closely with reality – in view of its mutilation, affected by the model.

There are more serious problems, philosophical in nature.

It is generally agreed that "changing" the game can – and very often does – move the players from a non-cooperative mode (leading to Paretto-dominated results, which are never desirable) – to a cooperative one. A government can force its citizens to cooperate and to obey the law. It can enforce this cooperation. This is often called a Hobbesian dilemma. It arises even in a population made up entirely of altruists. Different utility functions and the process of bargaining are likely to drive these good souls to threaten to become egoists unless other altruists adopt their utility function (their preferences, their bundles). Nash proved that there is an allocation of possible utility functions to these agents so that the equilibrium strategy for each one of them will be this kind of threat. This is a clear social Hobbesian dilemma: the equilibrium is absolute egoism despite the fact that all the players are altruists. This implies that we can learn very little about the outcomes of competitive situations from acquainting ourselves with the psychological facts pertaining to the players. The agents, in this example, are not selfish or irrational – and, still, they deteriorate in their behaviour, to utter egotism. A complete set of utility functions – including details regarding how much they know about one another's utility functions – defines the available equilibrium strategies. The altruists in our example are prisoners of the logic of the game. Only an "outside" power can release them from their predicament and permit them to materialize their true nature. Gauthier said that morally-constrained agents are more likely to evade Paretto-dominated outcomes in competitive games – than agents who are constrained only rationally. But this is unconvincing without the existence of an Hobesian enforcement mechanism (a state is the most common

one). Players would do better to avoid Paretto dominated outcomes by imposing the constraints of such a mechanism upon their available strategies. Paretto optimality is defined as efficiency, when there is no state of things (a different distribution of resources) in which at least one player is better off – with all the other no worse off. "Better off" read: "with his preference satisfied". This definitely could lead to cooperation (to avoid a bad outcome) – but it cannot be shown to lead to the formation of morality, however basic. Criminals can achieve their goals in splendid cooperation and be content, but that does not make it more moral. Game theory is agent neutral, it is utilitarianism at its apex. It does not prescribe to the agent what is "good" – only what is "right". It is the ultimate proof that effort at reconciling utilitarianism with more deontological, agent relative, approaches are dubious, in the best of cases. Teleology, in other words, in no guarantee of morality.

Acts are either means to an end or ends in themselves. This is no infinite regression. There is bound to be an holy grail (happiness?) in the role of the ultimate end. A more commonsense view would be to regard acts as means and states of affairs as ends. This, in turn, leads to a teleological outlook: acts are right or wrong in accordance with their effectiveness at securing the achievement of the right goals. Deontology (and its stronger version, absolutism) constrain the means. It states that there is a permitted subset of means, all the other being immoral and, in effect, forbidden. Game Theory is out to shatter both the notion of a finite chain of means and ends culminating in an ultimate end – and of the deontological view. It is consequentialist but devoid of any value judgement.

Game Theory pretends that human actions are breakable into much smaller "molecules" called games. Human acts within these games are means to achieving ends but the ends are improbable in their finality. The means are segments of "strategies": prescient and omniscient renditions of the possible moves of all the players. Aside from the fact that it involves mnemic causation (direct and deterministic influence by past events) and a similar influence by the utility function (which really pertains to the future) – it is highly implausible. Additionally, Game Theory is mired in an internal contradiction: on the one hand it solemnly teaches us that the psychology of the players is absolutely of no consequence. On the other, it hastens to explicitly and axiomatically postulate their rationality and implicitly (and no less axiomatically) their benefit-seeking behaviour (though this aspect is much more muted). This leads to absolutely outlandish results: irrational behaviour leads to total cooperation, bounded rationality leads to more realistic patterns of cooperation and competition (coopetition) and an unmitigated rational behaviour leads to disaster (also known as Paretto dominated outcomes).

Moreover, Game Theory refuses to acknowledge that real games are dynamic, not static. The very concepts of strategy, utility function and extensive (tree like) representation are static. The dynamic is retrospective, not prospective. To be dynamic, the game must include all the information about all the actors, all their strategies, all their utility functions. Each game is a subset of a higher level game, a private case of an implicit game which is constantly played in the background, so to say. This is a hyper-game of which all games are but derivatives. It incorporates all the physically possible moves of all the players. An outside agency with enforcement powers (the

state, the police, the courts, the law) are introduced by the players. In this sense, they are not really an outside event which has the effect of altering the game fundamentally. They are part and parcel of the strategies available to the players and cannot be arbitrarily ruled out. On the contrary, their introduction as part of a dominant strategy will simplify Game theory and make it much more applicable. In other words: players can choose to compete, to cooperate and to cooperate in the formation of an outside agency. There is no logical or mathematical reason to exclude the latter possibility. The ability to thus influence the game is a legitimate part of any real life strategy. Game Theory assumes that the game is a given – and the players have to optimize their results within it. It should open itself to the inclusion of game altering or redefining moves by the players as an integral part of their strategies. After all, games entail the existence of some agreement to play and this means that the players accept some rules (this is the role of the prosecutor in the Prisoners' Dilemma). If some outside rules (of the game) are permissible – why not allow the "risk" that all the players will agree to form an outside, lawfully binding, arbitration and enforcement agency – as part of the game? Such an agency will be nothing if not the embodiment, the materialization of one of the rules, a move in the players' strategies, leading them to more optimal or superior outcomes as far as their utility functions are concerned. Bargaining inevitably leads to an agreement regarding a decision making procedure. An outside agency, which enforces cooperation and some moral code, is such a decision making procedure. It is not an "outside" agency in the true, physical, sense. It does not "alter" the game (not to mention its rules). It IS the game, it is a procedure, a way to resolve conflicts, an integral part of any solution and imputation, the herald of cooperation, a representative

of some of the will of all the players and, therefore, a part both of their utility functions and of their strategies to obtain their preferred outcomes. Really, these outside agencies ARE the desired outcomes. Once Game Theory digests this observation, it could tackle reality rather than its own idealized contraptions.

Good, Natural and Aesthetic

"The perception of beauty is a moral test."
Henry David Thoreau

The distinction often made between emotions and judgements gives rise to a host of conflicting accounts of morality. Yet, in the same way that the distinction "observer-observed" is false, so is the distinction between emotions and judgements. Emotions contain judgements and judgements are formed by both emotions and the ratio. Emotions are responses to sensa (see "The Manifold of Sense") and inevitably incorporate judgements (and beliefs) about those sensa. Some of these judgements are inherent (the outcome of biological evolution), others cultural, some unconscious, others conscious, and the result of personal experience. Judgements, on the other hand, are not compartmentalized. They vigorously interact with our emotions as they form.

The source of this artificial distinction is the confusion between moral and natural laws.

We differentiate among four kinds of "right" and "good".

The Natural Good

There is "right" in the mathematical, physical, or pragmatic sense. It is "right" to do something in a certain way. In other words, it is viable, practical, functional, it

coheres with the world. Similarly, we say that it is "good" to do the "right" thing and that we "ought to" do it. It is the kind of "right" and "good" that compel us to act because we "ought to". If we adopt a different course, if we neglect, omit, or refuse to act in the "right" and "good" way, as we "ought to" - we are punished. Nature herself penalizes such violations. The immutable laws of nature are the source of the "rightness" and "goodness" of these courses of action. We are compelled to adopt them - because we have no other CHOICE. If we construct a bridge in the "right" and "good" way, as we "ought to" - it will survive. Otherwise, the laws of nature will make it collapse and, thus, punish us. We have no choice in the matter. The laws of nature constrain our moral principles as well.

The Moral Good

This lack of choice stands in stark contrast to the "good" and "right" of morality. The laws of morality cannot be compared to the laws of nature - nor are they variants or derivatives thereof. The laws of nature leave us no choice. The laws of morality rely on our choice.

Yet, the identical vocabulary and syntax we successfully employ in both cases (the pragmatic and the moral) - "right action", "good", and "ought to" - surely signify a deep and hidden connection between our dictated reactions to the laws of nature and our chosen reactions to the laws of morality (i.e., our reactions to the laws of Man or God)? Perhaps the principles and rules of morality ARE laws of nature - but with choice added? Modern physics incorporates deterministic theories (Newton's, Einstein's) - and theories involving probability and choice (Quantum Mechanics and its interpretations, especially the Copenhagen interpretation). Why can't we conceive of

moral laws as private cases (involving choice, judgements, beliefs, and emotions) of natural laws?

The Hedonistic Good

If so, how can we account for the third, hedonistic, variant of "good", "right", and "ought to"? To live the "good" life may mean to maximize one's utility (i.e., happiness, or pleasure) - but not necessarily to maximize overall utility. In other words, living the good life is not always a moral pursuit (if we apply to it Utilitarian or Consequentialist yardsticks). Yet, here, too, we use the same syntax and vocabulary. We say that we want to live the "good" life and to do so, there is a "right action", which we "ought to" pursue. Is hedonism a private case of the Laws of Nature as well? This would be going too far. Is it a private case of the rules or principles of Morality? It could be - but need not be. Still, the principle of utility has place in every cogent description of morality.

The Aesthetic Good

A fourth kind of "good" is of the aesthetic brand. The language of aesthetic judgement is identical to the languages of physics, morality, and hedonism. Aesthetic values sound strikingly like moral ones and both resemble, structurally, the laws of nature. We say that beauty is "right" (symmetric, etc.), that we "ought to" maximize beauty - and this leads to the right action. Replace "beauty" with "good" in any aesthetic statement - and one gets a moral statement. Moral, natural, aesthetic, and hedonistic statements are all mutually convertible. Moreover, an aesthetic experience often leads to moral action.

An Interactive Framework

It is safe to say that, when we wish to discuss the nature of "good" and "right", the Laws of Nature serve as the privileged frame of reference. They delimit and constrain the set of possible states - pragmatic and moral. No moral, aesthetic, or hedonistic principle or rule can defy, negate, suspend, or ignore the Laws of Nature. They are the source of everything that is "good" and "right". Thus, the language we use to describe all instances of "good" and "right" is "natural". Human choice, of course, does not exist as far as the Laws of Nature go.

Nature is beautiful - symmetric, elegant, and parsimonious. Aesthetic values and aesthetic judgements of "good" (i.e., beautiful) and "right" rely heavily on the attributes of Nature. Inevitably, they employ the same vocabulary and syntax. Aesthetics is the bridge between the functional or correct "good" and "right" - and the hedonistic "good" and "right". Aesthetics is the first order of the interaction between the WORLD and the MIND. Here, choice is very limited. It is not possible to "choose" something to be beautiful. It is either beautiful or it is not (regardless of the objective or subjective source of the aesthetic judgement).

The hedonist is primarily concerned with the maximization of his happiness and pleasure. But such outcomes can be secured only by adhering to aesthetic values, by rendering aesthetic judgements, and by maintaining aesthetic standards. The hedonist craves beauty, pursues perfection, avoids the ugly - in short, the hedonist is an aesthete. Hedonism is the application of aesthetic rules, principles, values, and judgements in a social and cultural setting. Hedonism is aesthetics in context - the context of being human in a society of humans. The hedonist has a limited, binary, choice -

between being a hedonist and not being one.

From here it is one step to morality. The principle of individual utility which underlies hedonism can be easily generalized to encompass Humanity as a whole. The social and cultural context is indispensable - there cannot be meaningful morality outside society. A Robinson Crusoe - at least until he spotted Friday - is an a-moral creature. Thus, morality is generalized hedonism with the added (and crucial) feature of free will and (for all practical purposes) unrestricted choice. It is what makes us really human.

H

Hitler, Adolf

"My feeling as a Christian points me to my Lord and Savior as a fighter. It points me to the man who once in loneliness, surrounded only by a few followers, recognized these Jews for what they were and summoned men to fight against them and who, God's truth! was greatest not as a sufferer but as a fighter.

In boundless love as a Christian and as a man I read through the passage which tells us how the Lord at last rose in His might and seized the scourge to drive out of the Temple the brood of vipers and adders. How terrific was his fight against the Jewish poison.

Today, after two thousand years, with deepest emotion I recognize more profoundly than ever before the fact that it was for this that He had to shed his blood upon the Cross.

As a Christian I have no duty to allow myself to be cheated, but I have the duty to be a fighter for truth and justice . . .

And if there is anything which could demonstrate that we are acting rightly, it is the distress that daily grows. For as a Christian I have also a duty to my own people. And when I look on my people I see them work and work and toil and labor, and at the end of the week they have only for their wages wretchedness and misery.

When I go out in the morning and see these men standing in their queues and look into their pinched

faces, then I believe I would be no Christian, but a very devil, if I felt no pity for them, if I did not, as did our Lord two thousand years ago, turn against those by whom today this poor people are plundered and exploited."

(Source: The Straight Dope - Speech by Adolf Hitler, delivered April 12, 1922, published in "My New Order," and quoted in Freethought Today (April 1990)

Hitler and Nazism are often portrayed as an apocalyptic and seismic break with European history. Yet the truth is that they were the culmination and reification of European history in the 19th century. Europe's annals of colonialism have prepared it for the range of phenomena associated with the Nazi regime - from industrial murder to racial theories, from slave labour to the forcible annexation of territory.

Germany was a colonial power no different to murderous Belgium or Britain. What set it apart is that it directed its colonial attentions at the heartland of Europe - rather than at Africa or Asia. Both World Wars were colonial wars fought on European soil. Moreover, Nazi Germany innovated by applying prevailing racial theories (usually reserved to non-whites) to the white race itself. It started with the Jews - a non-controversial proposition - but then expanded them to include "east European" whites, such as the Poles and the Russians.

Germany was not alone in its malignant nationalism. The far right in France was as pernicious. Nazism - and Fascism - were world ideologies, adopted enthusiastically in places as diverse as Iraq, Egypt, Norway, Latin America, and Britain. At the end of the 1930's, liberal capitalism, communism, and fascism (and its mutations) were locked in mortal battle of ideologies. Hitler's mistake

was to delusionally believe in the affinity between capitalism and Nazism - an affinity enhanced, to his mind, by Germany's corporatism and by the existence of a common enemy: global communism.

Colonialism always had discernible religious overtones and often collaborated with missionary religion. "The White Man's burden" of civilizing the "savages" was widely perceived as ordained by God. The church was the extension of the colonial power's army and trading companies.

It is no wonder that Hitler's lebensraum colonial movement - Nazism - possessed all the hallmarks of an institutional religion: priesthood, rites, rituals, temples, worship, catechism, mythology. Hitler was this religion's ascetic saint. He monastically denied himself earthly pleasures (or so he claimed) in order to be able to dedicate himself fully to his calling. Hitler was a monstrously inverted Jesus, sacrificing his life and denying himself so that (Aryan) humanity should benefit. By surpassing and suppressing his humanity, Hitler became a distorted version of Nietzsche's "superman".

But being a-human or super-human also means being a-sexual and a-moral. In this restricted sense, Hitler was a post-modernist and a moral relativist. He projected to the masses an androgynous figure and enhanced it by fostering the adoration of nudity and all things "natural". But what Nazism referred to as "nature" was not natural at all.

It was an aesthetic of decadence and evil (though it was not perceived this way by the Nazis), carefully orchestrated, and artificial. Nazism was about reproduced copies, not about originals. It was about the manipulation

of symbols - not about veritable atavism.

In short: Nazism was about theatre, not about life. To enjoy the spectacle (and be subsumed by it), Nazism demanded the suspension of judgment, depersonalization, and de-realization. Catharsis was tantamount, in Nazi dramaturgy, to self-annulment. Nazism was nihilistic not only operationally, or ideologically. Its very language and narratives were nihilistic. Nazism was conspicuous nihilism - and Hitler served as a role model, annihilating Hitler the Man, only to re-appear as Hitler the stychia.

What was the role of the Jews in all this?

Nazism posed as a rebellion against the "old ways" - against the hegemonic culture, the upper classes, the established religions, the superpowers, the European order. The Nazis borrowed the Leninist vocabulary and assimilated it effectively. Hitler and the Nazis were an adolescent movement, a reaction to narcissistic injuries inflicted upon a narcissistic (and rather psychopathic) toddler nation-state. Hitler himself was a malignant narcissist, as Fromm correctly noted.

The Jews constituted a perfect, easily identifiable, embodiment of all that was "wrong" with Europe. They were an old nation, they were eerily disembodied (without a territory), they were cosmopolitan, they were part of the establishment, they were "decadent", they were hated on religious and socio-economic grounds (see Goldhagen's "Hitler's Willing Executioners"), they were different, they were narcissistic (felt and acted as morally superior), they were everywhere, they were defenseless, they were credulous, they were adaptable (and thus could be co-opted to collaborate in their own destruction). They were the perfect hated father figure and parricide was in

fashion.

This is precisely the source of the fascination with Hitler. He was an inverted human. His unconscious was his conscious. He acted out our most repressed drives, fantasies, and wishes. He provides us with a glimpse of the horrors that lie beneath the veneer, the barbarians at our personal gates, and what it was like before we invented civilization. Hitler forced us all through a time warp and many did not emerge. He was not the devil. He was one of us. He was what Arendt aptly called the banality of evil. Just an ordinary, mentally disturbed, failure, a member of a mentally disturbed and failing nation, who lived through disturbed and failing times. He was the perfect mirror, a channel, a voice, and the very depth of our souls.

Home

On June 9, 2005 the BBC reported about an unusual project underway in Sheffield (in the United Kingdom). The daily movements and interactions of a family living in a technology-laden, futuristic home are being monitored and recorded. "The aim is to help house builders predict how we will want to use our homes 10 or 20 years from now." - explained the reporter.

The home of the future may be quite a chilling - or uplifting - prospect, depending on one's prejudices and predilections.

Christopher Sanderson, of The Future Laboratory and Richard Brindley, of the Royal Institute of British Architects describe smaller flats with movable walls as a probable response to over-crowding. Home systems will cater to all the entertainment and media needs of the inhabitants further insulating them from their social

milieu.

Even hobbies will move indoors. Almost every avocation - from cooking to hiking - can now be indulged at home with pro-am (professional-amateur) equipment. We may become self-sufficient as far as functions we now outsource - such as education and dry cleaning - go. Lastly, in the long-run, robots are likely to replace some pets and many human interactions.

These technological developments will have grave effects on family cohesion and functioning.

The family is the mainspring of support of every kind. It mobilizes psychological resources and alleviates emotional burdens. It allows for the sharing of tasks, provides material goods together with cognitive training. It is the prime socialization agent and encourages the absorption of information, most of it useful and adaptive.

This division of labour between parents and children is vital both to development and to proper adaptation. The child must feel, in a functional family, that s/he can share his experiences without being defensive and that the feedback that s/he is likely to receive will be open and unbiased. The only "bias" acceptable (because it is consistent with constant outside feedback) is the set of beliefs, values and goals that is internalized via imitation and unconscious identification.

So, the family is the first and the most important source of identity and of emotional support. It is a greenhouse wherein a child feels loved, accepted and secure - the prerequisites for the development of personal resources. On the material level, the family should provide the basic necessities (and, preferably, beyond), physical care and

protection and refuge and shelter during crises.

Elsewhere, we have discussed the role of the mother (The Primary Object). The father's part is mostly neglected, even in professional literature. However, recent research demonstrates his importance to the orderly and healthy development of the child.

He participates in the day to day care, is an intellectual catalyst, who encourages the child to develop his interests and to satisfy his curiosity through the manipulation of various instruments and games. He is a source of authority and discipline, a boundary setter, enforcing and encouraging positive behaviors and eliminating negative ones. He also provides emotional support and economic security, thus stabilizing the family unit. Finally, he is the prime source of masculine orientation and identification to the male child - and gives warmth and love as a male to his daughter, without exceeding the socially permissible limits.

These traditional roles of the family are being eroded from both the inside and the outside. The proper functioning of the classical family was determined, to a large extent, by the geographical proximity of its members. They all huddled together in the "family unit" – an identifiable volume of physical space, distinct and different to other units. The daily friction and interaction between the members of the family molded them, influenced their patterns of behavior and their reactive patterns and determined how successful their adaptation to life would be.

With the introduction of modern, fast transportation and telecommunications, it was no longer possible to confine the members of the family to the household, to the village,

or even to the neighborhood. The industrial revolution splintered the classical family and scattered its members.

Still, the result was not the disappearance of the family but the formation of nuclear families: leaner and meaner units of production. The extended family of yore (three or four generations) merely spread its wings over a greater physical distance – but in principle, remained almost intact.

Grandma and grandpa would live in one city with a few of the younger or less successful aunts and uncles. Their other daughters or sons would be married and moved to live either in another part of the same city, or in another geographical location (even in another continent). But contact was maintained by more or less frequent visits, reunions and meetings on opportune or critical occasions.

This was true well into the 1950s.

However, a series of developments in the second half of the twentieth century threatens to completely decouple the family from its physical dimension. We are in the process of experimenting with the family of the future: the virtual family. This is a family devoid of any spatial (geographical) or temporal identity. Its members do not necessarily share the same genetic heritage (the same blood lineage). It is bound mainly by communication, rather than by interests. Its domicile is cyberspace, its residence in the realm of the symbolic.

Urbanization and industrialization pulverized the structure of the family, by placing it under enormous pressures and by causing it to relegate most of its functions to outside agencies: education was taken over by schools, health – by (national or private) health plans, entertainment by

television, interpersonal communication by telephony and computers, socialization by the mass media and the school system and so on.

Devoid of its traditional functions, subject to torsion and other elastic forces – the family was torn apart and gradually stripped of its meaning. The main functions left to the family unit were the provision of the comfort of familiarity (shelter) and serving as a physical venue for leisure activities.

The first role - familiarity, comfort, security, and shelter - was eroded by the global brands.

The "Home Away from Home" business concept means that multinational brands such as Coca-Cola and McDonalds foster familiarity where previously there was none. Needless to say that the etymological closeness between "family" and "familiar" is no accident. The estrangement felt by foreigners in a foreign land is, thus, alleviated, as the world is fast becoming mono-cultural.

The "Family of Man" and the "Global Village" have replaced the nuclear family and the physical, historic, village. A businessman feels more at home in any Sheraton or Hilton than in the living room of his ageing parents. An academician feels more comfortable in any faculty in any university than with his own nuclear or immediate family. One's old neighborhood is a source of embarrassment rather than a fount of strength.

The family's second function - leisure activities - fell prey to the advance of the internet and digital and wireless telecommunications.

Whereas the hallmark of the classical family was that it had clear spatial and temporal coordinates – the virtual

family has none. Its members can (and often do) live in different continents. They communicate by digital means. They have electronic mail (rather than the physical post office box). They have a "HOME page". They have a "webSITE".

In other words, they have the virtual equivalents of geographical reality, a "VIRTUAL reality" or "virtual existence". In the not so distant future, people will visit each other electronically and sophisticated cameras will allow them to do so in three-dimensional format.

The temporal dimension, which was hitherto indispensable in human interactions – being at the same place in the same time in order to interact - is also becoming unnecessary. Voicemail and videomail messages will be left in electronic "boxes" to be retrieved at the convenience of the recipient. Meetings in person will be made redundant with the advent of video-conferencing.

The family will not remain unaffected. A clear distinction will emerge between the biological family and the virtual family. A person will be born into the first but will regard this fact as accidental. Blood relations will count less than virtual relations. Individual growth will involve the formation of a virtual family, as well as a biological one (getting married and having children). People will feel equally at ease anywhere in the world for two reasons:

1. There will be no appreciable or discernible difference between geographical locations. Separate will no longer mean disparate. A McDonald's and a Coca-Cola and a Hollywood produced movie are already available everywhere and always. So will the internet treasures of

knowledge and entertainment.

2. Interactions with the outside world will be minimized. People will conduct their lives more and more indoors. They will communicate with others (their biological original family included) via telecommunications devices and the internet. They will spend most of their time, work and create in the cyber-world. Their true (really, only) home will be their website. Their only reliably permanent address will be their e-mail address. Their enduring friendships will be with co-chatters. They will work from home, flexibly and independently of others. They will customize their cultural consumption using 500 channel televisions based on video on demand technology.

Hermetic and mutually exclusive universes will be the end result of this process. People will be linked by very few common experiences within the framework of virtual communities. They will haul their world with them as they move about. The miniaturization of storage devices will permit them to carry whole libraries of data and entertainment in their suitcase or backpack or pocket.

It is true that all these predictions are extrapolations of technological breakthroughs and devices, which are in their embryonic stages and are limited to affluent, English-speaking, societies in the West. But the trends are clear and they mean ever-increasing differentiation, isolation and individuation. This is the last assault, which the family will not survive. Already most households consist of "irregular" families (single parents, same sex, etc.). The rise of the virtual family will sweep even these transitory forms aside.

Humanness (on being human)

Are we human because of unique traits and attributes not shared with either animal or machine? The definition of "human" is circular: we are human by virtue of the properties that make us human (i.e., distinct from animal and machine). It is a definition by negation: that which separates us from animal and machine is our "human-ness".

We are human because we are not animal, nor machine. But such thinking has been rendered progressively less tenable by the advent of evolutionary and neo-evolutionary theories which postulate a continuum in nature between animals and Man.

Our uniqueness is partly quantitative and partly qualitative. Many animals are capable of cognitively manipulating symbols and using tools. Few are as adept at it as we are. These are easily quantifiable differences - two of many.

Qualitative differences are a lot more difficult to substantiate. In the absence of privileged access to the animal mind, we cannot and don't know if animals feel guilt, for instance. Do animals love? Do they have a concept of sin? What about object permanence, meaning, reasoning, self-awareness, critical thinking? Individuality? Emotions? Empathy? Is artificial intelligence (AI) an oxymoron? A machine that passes the Turing Test may well be described as "human". But is it really? And if it is not - why isn't it?

Literature is full of stories of monsters - Frankenstein, the Golem - and androids or anthropoids. Their behaviour is more "humane" than the humans around them. This,

perhaps, is what really sets humans apart: their behavioural unpredictability. It is yielded by the interaction between Mankind's underlying immutable genetically-determined nature - and Man's kaleidoscopically changing environments.

The Constructivists even claim that Human Nature is a mere cultural artefact. Sociobiologists, on the other hand, are determinists. They believe that human nature - being the inevitable and inexorable outcome of our bestial ancestry - cannot be the subject of moral judgment.

An improved Turing Test would look for baffling and erratic patterns of misbehaviour to identify humans. Pico della Mirandola wrote in "Oration on the Dignity of Man" that Man was born without a form and can mould and transform - actually, create - himself at will. Existence precedes essence, said the Existentialists centuries later.

The one defining human characteristic may be our awareness of our mortality. The automatically triggered, "fight or flight", battle for survival is common to all living things (and to appropriately programmed machines). Not so the catalytic effects of imminent death. These are uniquely human. The appreciation of the fleeting translates into aesthetics, the uniqueness of our ephemeral life breeds morality, and the scarcity of time gives rise to ambition and creativity.

In an infinite life, everything materializes at one time or another, so the concept of choice is spurious. The realization of our finiteness forces us to choose among alternatives. This act of selection is predicated upon the existence of "free will". Animals and machines are thought to be devoid of choice, slaves to their genetic or human programming.

Yet, all these answers to the question: "What does it mean to be human" - are lacking.

The set of attributes we designate as human is subject to profound alteration. Drugs, neuroscience, introspection, and experience all cause irreversible changes in these traits and characteristics. The accumulation of these changes can lead, in principle, to the emergence of new properties, or to the abolition of old ones.

Animals and machines are not supposed to possess free will or exercise it. What, then, about fusions of machines and humans (bionics)? At which point does a human turn into a machine? And why should we assume that free will ceases to exist at that - rather arbitrary - point?

Introspection - the ability to construct self-referential and recursive models of the world - is supposed to be a uniquely human quality. What about introspective machines? Surely, say the critics, such machines are PROGRAMMED to introspect, as opposed to humans. To qualify as introspection, it must be WILLED, they continue. Yet, if introspection is willed - WHO wills it? Self-willed introspection leads to infinite regression and formal logical paradoxes.

Moreover, the notion - if not the formal concept - of "human" rests on many hidden assumptions and conventions.

Political correctness notwithstanding - why presume that men and women (or different races) are identically human? Aristotle thought they were not. A lot separates males from females - genetically (both genotype and phenotype) and environmentally (culturally). What is common to these two sub-species that makes them both

"human"?

Can we conceive of a human without body (i.e., a Platonian Form, or soul)? Aristotle and Thomas Aquinas think not. A soul has no existence separate from the body. A machine-supported energy field with mental states similar to ours today - would it be considered human? What about someone in a state of coma - is he or she (or it) fully human?

Is a new born baby human - or, at least, fully human - and, if so, in which sense? What about a future human race - whose features would be unrecognizable to us? Machine-based intelligence - would it be thought of as human? If yes, when would it be considered human?

In all these deliberations, we may be confusing "human" with "person". The former is a private case of the latter. Locke's person is a moral agent, a being responsible for its actions. It is constituted by the continuity of its mental states accessible to introspection.

Locke's is a functional definition. It readily accommodates non-human persons (machines, energy matrices) if the functional conditions are satisfied. Thus, an android which meets the prescribed requirements is more human than a brain dead person.

Descartes' objection that one cannot specify conditions of singularity and identity over time for disembodied souls is right only if we assume that such "souls" possess no energy. A bodiless intelligent energy matrix which maintains its form and identity over time is conceivable. Certain AI and genetic software programs already do it.

Strawson is Cartesian and Kantian in his definition of a "person" as a "primitive". Both the corporeal predicates

and those pertaining to mental states apply equally, simultaneously, and inseparably to all the individuals of that type of entity. Human beings are one such entity. Some, like Wiggins, limit the list of possible persons to animals - but this is far from rigorously necessary and is unduly restrictive.

The truth is probably in a synthesis:

A person is any type of fundamental and irreducible entity whose typical physical individuals (i.e., members) are capable of continuously experiencing a range of states of consciousness and permanently having a list of psychological attributes.

This definition allows for non-animal persons and recognizes the personhood of a brain damaged human ("capable of experiencing"). It also incorporates Locke's view of humans as possessing an ontological status similar to "clubs" or "nations" - their personal identity consists of a variety of interconnected psychological continuities.

I-J

Identity (as Habit)

In a famous experiment, students were asked to take a lemon home and to get used to it. Three days later, they were able to single out "their" lemon from a pile of rather similar ones. They seemed to have bonded. Is this the true meaning of love, bonding, coupling? Do we simply get used to other human beings, pets, or objects

Habit forming in humans is reflexive. We change ourselves and our environment in order to attain maximum comfort and well being. It is the effort that goes into these adaptive processes that forms a habit. The habit is intended to prevent us from constant experimenting and risk taking. The greater our well being, the better we function and the longer we survive.

Actually, when we get used to something or to someone – we get used to ourselves. In the object of the habit we see a part of our history, all the time and effort that we put into it. It is an encapsulated version of our acts, intentions, emotions and reactions. It is a mirror reflecting back at us that part in us, which formed the habit. Hence, the feeling of comfort: we really feel comfortable with our own selves through the agency of the object of our habit.

Because of this, we tend to confuse habits with identity. If asked WHO they are, most people will resort to describing their habits. They will relate to their work, their loved ones, their pets, their hobbies, or their material possessions. Yet, all of these cannot constitute part of an identity because their removal does not change the

identity that we are seeking to establish when we enquire WHO someone is. They are habits and they make the respondent comfortable and relaxed. But they are not part of his identity in the truest, deepest sense.

Still, it is this simple mechanism of deception that binds people together. A mother feels that her off spring are part of her identity because she is so used to them that her well being depends on their existence and availability. Thus, any threat to her children is interpreted to mean a threat on her Self. Her reaction is, therefore, strong and enduring and can be recurrently elicited.

The truth, of course, is that her children ARE a part of her identity in a superficial manner. Removing her will make her a different person, but only in the shallow, phenomenological sense f the word. Her deep-set, true identity will not change as a result. Children do die at times and their mother does go on living, essentially unchanged.

But what is this kernel of identity that I am referring to? This immutable entity which is the definition of who we are and what we are and which, ostensibly, is not influenced by the death of our loved ones? What is so strong as to resist the breaking of habits that die hard?

It is our personality. This elusive, loosely interconnected, interacting, pattern of reactions to our changing environment. Like the Brain, it is difficult to define or to capture. Like the Soul, many believe that it does not exist, that it is a fictitious convention. Yet, we know that we do have a personality. We feel it, we experience it. It sometimes encourages us to do things – at other times, as much as prevents us from doing them. It can be supple or rigid, benign or malignant, open or closed. Its power lies

in its looseness. It is able to combine, recombine and permute in hundreds of unforeseeable ways. It metamorphesizes and the constancy of its rate and kind of change is what gives us a sense of identity.

Actually, when the personality is rigid to the point of being unable to change in reaction to changing circumstances – we say that it is disordered. A personality Disorder is the ultimate misidentification. The individual mistakes his habits for his identity. He identifies himself with his environment, taking behavioural, emotional, and cognitive cues exclusively from it. His inner world is, so to speak, vacated, inhabited, as it were, by the apparition of his True Self.

Such a person is incapable of loving and of living. He is incapable of loving because to love (at least according to our model) is to equate and collate two distinct entities: one's Self and one's habits. The personality disordered sees no distinction. He IS his habits and, therefore, by definition, can only rarely and with an incredible amount of exertion, change them. And, in the long term, he is incapable of living because life is a struggle TOWARDS, a striving, a drive AT something. In other words: life is change. He who cannot change, cannot live.

Identity (Film Review "Shattered")

I. **Exposition**

In the movie "Shattered" (1991), Dan Merrick survives an accident and develops total amnesia regarding his past. His battered face is reconstructed by plastic surgeons and, with the help of his loving wife, he gradually recovers his will to live. But he never develops a proper sense of identity. It is as though he is constantly ill at ease in his own body. As the plot unravels, Dan is led to believe that

he may have murdered his wife's lover, Jack. This thriller offers additional twists and turns but, throughout it all, we face this question:

Dan has no recollection of being Dan. Dan does not remember murdering Jack. It seems as though Dan's very identity has been erased. Yet, Dan is in sound mind and can tell right from wrong. Should Dan be held (morally and, as a result, perhaps legally as well) accountable for Jack's murder?

Would the answer to this question still be the same had Dan erased from his memory ONLY the crime -but recalled everything else (in an act of selective dissociation)? Do our moral and legal accountability and responsibility spring from the integrity of our memories? If Dan were to be punished for a crime he doesn't have the faintest recollection of committing - wouldn't he feel horribly wronged? Wouldn't he be justified in feeling so?

There are many states of consciousness that involve dissociation and selective amnesia: hypnosis, trance and possession, hallucination, illusion, memory disorders (like organic, or functional amnesia), depersonalization disorder, dissociative fugue, dreaming, psychosis, post traumatic stress disorder, and drug-induced psychotomimetic states.

Consider this, for instance:

What if Dan were the victim of a Multiple Personality Disorder (now known as "Dissociative Identity Disorder")? What if one of his "alters" (i.e., one of the multitude of "identities" sharing Dan's mind and body) committed the crime? Should Dan still be held responsible? What if the alter "John" committed the crime

and then "vanished", leaving behind another alter (let us say, "Joseph") in control? Should "Joseph" be held responsible for the crime "John" committed? What if "John" were to reappear 10 years after he "vanished"? What if he were to reappear 50 years after he "vanished"? What if he were to reappear for a period of 90 days - only to "vanish" again? And what is Dan's role in all this? Who, exactly, then, is Dan?

II. **Who is Dan?**

Buddhism compares Man to a river. Both retain their identity despite the fact that their individual composition is different at different moments. The possession of a body as the foundation of a self-identity is a dubious proposition. Bodies change drastically in time (consider a baby compared to an adult). Almost all the cells in a human body are replaced every few years. Changing one's brain (by transplantation) - also changes one's identity, even if the rest of the body remains the same.

Thus, the only thing that binds a "person" together (i.e., gives him a self and an identity) is time, or, more precisely, memory. By "memory" I also mean: personality, skills, habits, retrospected emotions - in short: all long term imprints and behavioural patterns. The body is not an accidental and insignificant container, of course. It constitutes an important part of one's self-image, self-esteem, sense of self-worth, and sense of existence (spatial, temporal, and social). But one can easily imagine a brain in vitro as having the same identity as when it resided in a body. One cannot imagine a body without a brain (or with a different brain) as having the same identity it had before the brain was removed or replaced.

What if the brain in vitro (in the above example) could not

communicate with us at all? Would we still think it is possessed of a self? The biological functions of people in coma are maintained. But do they have an identity, a self? If yes, why do we "pull the plug" on them so often?

It would seem (as it did to Locke) that we accept that someone has a self-identity if: (a) He has the same hardware as we do (notably, a brain) and (b) He communicates his humanly recognizable and comprehensible inner world to us and manipulates his environment. We accept that he has a given (i.e., the same continuous) self-identity if (c) He shows consistent intentional (i.e., willed) patterns ("memory") in doing (b) for a long period of time.

It seems that we accept that we have a self-identity (i.e., we are self-conscious) if (a) We discern (usually through introspection) long term consistent intentional (i.e., willed) patterns ("memory") in our manipulation ("relating to") of our environment and (b) Others accept that we have a self-identity (Herbert Mead, Feuerbach).

Dan (probably) has the same hardware as we do (a brain). He communicates his (humanly recognizable and comprehensible) inner world to us (which is how he manipulates us and his environment). Thus, Dan clearly has a self-identity. But he is inconsistent. His intentional (willed) patterns, his memory, are incompatible with those demonstrated by Dan before the accident. Though he clearly is possessed of a self-identity, we cannot say that he has the SAME self-identity he possessed before the crash. In other words, we cannot say that he, indeed, is Dan.

Dan himself does not feel that he has a self-identity at all. He discerns intentional (willed) patterns in his

manipulation of his environment but, due to his amnesia, he cannot tell if these are consistent, or long term. In other words, Dan has no memory. Moreover, others do not accept him as Dan (or have their doubts) because they have no memory of Dan as he is now.

Interim conclusion:

Having a memory is a necessary and sufficient condition for possessing a self-identity.

III. **Repression**

Yet, resorting to memory to define identity may appear to be a circular (even tautological) argument. When we postulate memory - don't we already presuppose the existence of a "remembering agent" with an established self-identity?

Moreover, we keep talking about "discerning", "intentional", or "willed" patterns. But isn't a big part of our self (in the form of the unconscious, full of repressed memories) unavailable to us? Don't we develop defence mechanisms against repressed memories and fantasies, against unconscious content incongruent with our self-image? Even worse, this hidden, inaccessible, dynamically active part of our self is thought responsible for our recurrent discernible patterns of behaviour. The phenomenon of posthypnotic suggestion seems to indicate that this may be the case. The existence of a self-identity is, therefore, determined through introspection (by oneself) and observation (by others) of merely the conscious part of the self.

But the unconscious is as much a part of one's self-identity as one's conscious. What if, due to a mishap, the roles were reversed? What if Dan's conscious part were to

become his unconscious and his unconscious part - his conscious? What if all his conscious memories, drives, fears, wishes, fantasies, and hopes - were to become unconscious while his repressed memories, drives, etc. - were to become conscious? Would we still say that it is "the same" Dan and that he retains his self-identity? Not very likely. And yet, one's (unremembered) unconscious - for instance, the conflict between id and ego - determines one's personality and self-identity.

The main contribution of psychoanalysis and later psychodynamic schools is the understanding that self-identity is a dynamic, evolving, ever-changing construct - and not a static, inertial, and passive entity. It casts doubt over the meaningfulness of the question with which we ended the exposition: "Who, exactly, then, is Dan?" Dan is different at different stages of his life (Erikson) and he constantly evolves in accordance with his innate nature (Jung), past history (Adler), drives (Freud), cultural milieu (Horney), upbringing (Klein, Winnicott), needs (Murray), or the interplay with his genetic makeup. Dan is not a thing - he is a process. Even Dan's personality traits and cognitive style, which may well be stable, are often influenced by Dan's social setting and by his social interactions.

It would seem that having a memory is a necessary but insufficient condition for possessing a self-identity. One cannot remember one's unconscious states (though one can remember their outcomes). One often forgets events, names, and other information even if it was conscious at a given time in one's past. Yet, one's (unremembered) unconscious is an integral and important part of one's identity and one's self. The remembered as well as the unremembered constitute one's self-identity.

IV. **The Memory Link**

Hume said that to be considered in possession of a mind, a creature needs to have a few states of consciousness linked by memory in a kind of narrative or personal mythology. Can this conjecture be equally applied to unconscious mental states (e.g. subliminal perceptions, beliefs, drives, emotions, desires, etc.)?

In other words, can we rephrase Hume and say that to be considered in possession of a mind, a creature needs to have a few states of consciousness and a few states of the unconscious - all linked by memory into a personal narrative? Isn't it a contradiction in terms to remember the unconscious?

The unconscious and the subliminal are instance of the general category of mental phenomena which are not states of consciousness (i.e., are not conscious). Sleep and hypnosis are two others. But so are "background mental phenomena" - e.g., one holds onto one's beliefs and knowledge even when one is not aware (conscious) of them at every given moment. We know that an apple will fall towards the earth, we know how to drive a car ("automatically"), and we believe that the sun will rise tomorrow, even though we do not spend every second of our waking life consciously thinking about falling apples, driving cars, or the position of the sun.

Yet, the fact that knowledge and beliefs and other background mental phenomena are not constantly conscious - does not mean that they cannot be remembered. They can be remembered either by an act of will, or in (sometimes an involuntary) response to changes in the environment. The same applies to all other unconscious content. Unconscious content can be

recalled. Psychoanalysis, for instance, is about re-introducing repressed unconscious content to the patient's conscious memory and thus making it "remembered".

In fact, one's self-identity may be such a background mental phenomenon (always there, not always conscious, not always remembered). The acts of will which bring it to the surface are what we call "memory" and "introspection".

This would seem to imply that having a self-identity is independent of having a memory (or the ability to introspect). Memory is just the mechanism by which one becomes aware of one's background, "always-on", and omnipresent (all-pervasive) self-identity. Self-identity is the object and predicate of memory and introspection. It is as though self-identity were an emergent extensive parameter of the complex human system - measurable by the dual techniques of memory and introspection.

We, therefore, have to modify our previous conclusions:

Having a memory is not a necessary nor a sufficient condition for possessing a self-identity.

We are back to square one. The poor souls in Oliver Sacks' tome, "The Man Who Mistook his Wife for a Hat" are unable to create and retain memories. They occupy an eternal present, with no past. They are thus unable to access (or invoke) their self-identity by remembering it. Their self-identity is unavailable to them (though it is available to those who observe them over many years) - but it exists for sure. Therapy often succeeds in restoring pre-amnesiac memories and self-identity.

V. **The Incorrigible Self**

Self-identity is not only always-on and all-pervasive - but also incorrigible. In other words, no one - neither an observer, nor the person himself - can "disprove" the existence of his self-identity. No one can prove that a report about the existence of his (or another's) self-identity is mistaken.

Is it equally safe to say that no one - neither an observer, nor the person himself - can prove (or disprove) the non-existence of his self-identity? Would it be correct to say that no one can prove that a report about the non-existence of his (or another's) self-identity is true or false?

Dan's criminal responsibility crucially depends on the answers to these questions. Dan cannot be held responsible for Jack's murder if he can prove that he is ignorant of the facts of his action (i.e., if he can prove the non-existence of his self-identity). If he has no access to his (former) self-identity - he can hardly be expected to be aware and cognizant of these facts.

What is in question is not Dan's mens rea, nor the application of the McNaghten tests (did Dan know the nature and quality of his act or could he tell right from wrong) to determine whether Dan was insane when he committed the crime. A much broader issue is at stake: is it the same person? Is the murderous Dan the same person as the current Dan? Even though Dan seems to own the same body and brain and is manifestly sane - he patently has no access to his (former) self-identity. He has changed so drastically that it is arguable whether he is still the same person - he has been "replaced".

Finally, we can try to unite all the strands of our discourse into this double definition:

It would seem that we accept that someone has a self-identity if: (a) He has the same hardware as we do (notably, a brain) and, by implication, the same software as we do (an all-pervasive, omnipresent self-identity) and (b) He communicates his humanly recognizable and comprehensible inner world to us and manipulates his environment. We accept that he has a specific (i.e., the same continuous) self-identity if (c) He shows consistent intentional (i.e., willed) patterns ("memory") in doing (b) for a long period of time.

It seems that we accept that we have a specific self-identity (i.e., we are self-conscious of a specific identity) if (a) We discern (usually through memory and introspection) long term consistent intentional (i.e., willed) patterns ("memory") in our manipulation ("relating to") of our environment and (b) Others accept that we have a specific self-identity.

In conclusion: Dan undoubtedly has a self-identity (being human and, thus, endowed with a brain). Equally undoubtedly, this self-identity is not Dan's (but a new, unfamiliar, one).

Such is the stuff of our nightmares - body snatching, demonic possession, waking up in a strange place, not knowing who we are. Without a continuous personal history - we are not. It is what binds our various bodies, states of mind, memories, skills, emotions, and cognitions - into a coherent bundle of identity. Dan speaks, drinks, dances, talks, and makes love - but throughout that time, he is not present because he does not remember Dan and how it is to be Dan. He may have murdered Jake - but, by all philosophical and ethical criteria, it was most definitely not his fault.

Idiosyncrasy (and Logic)

The ***sentence A*** "all rabbits are black" is either True or False. It, therefore, has a wave function with two branches or two universes: one in which all rabbits are, indeed, black and one in which, not all rabbits are black (in other words, in which at least one rabbit is white).

It is impossible to prove the sentence "all rabbits are black" - but very easy to falsify or disprove it. Enough to produce one white rabbit to do so.

The ***sentence B*** "some rabbits are black" is, similarly, either True or False. It also has a wave function with two branches or two universes: one in which some rabbits are, indeed, black and one in which no rabbit is black (or, in other words, all rabbits are white).

The worlds described by the two sentences largely intersect. If True, sentence B is partly contained by sentence A, though to what extent we can never know. We can safely say that sentences A and B are asymptotically equivalent or asymptotically identical. In a world with one white rabbit and uncounted trillions of black rabbits, A and B are virtually indistinguishable.

Yet, despite this intersection, this common ground, sentence A reacts entirely differently to syllogistic transformation than sentence B.

Imagine a ***sentence C***: "This is a white rabbit". It ***FALSIFIES*** sentence A ("All rabbits are black") but leaves ***UNAFFECTED*** sentence B ("Some rabbits are black"). These are diametrically opposed outcomes.

How can two sentences that are so similar react so differently to the same transformation?

Arithmetic, formal logic, and, by extension, mathematics and physics deal with proving identities in equations. Two plus two equal four. The left hand of the expression equals (is identical) to the right hand. That two, potentially asymptotically identical, sentences (such as A and B above) react so at odds to the same transforming sentence (C) is astounding.

We must, therefore, study the possibility that there is something special, a unique property, an idiosyncrasy, in sentences A, and/or B, and/or C, and/or in their conjunction. If we fail to find such distinguishing marks, we must learn why asymptotically identical sentences react so differently to the same test and what are the implications of this disturbing find.

Impeachment (arguments)

In the hallways of the Smithsonian, two moralists are debating the impeachment of the President of the United States of America, Mr. William Jefferson Clinton. One is clearly Anti-Clinton (AC) the other, a Democrat (DC), is not so much for him as he is for the rational and pragmatic application of moral principles.

AC (expectedly): "The President should be impeached".

DC (no less expectedly): "But, surely, even you are not trying to imply that he has committed ***high crimes and misdemeanours***, as the Constitution demands as grounds for the impeachment of a sitting President!"

AC: "But I do. ***Perjury*** is such a high crime because it undermines the very fabric of trust between fellow citizens and between the citizen and the system of justice, the courts."

DC: "A person is innocent until proven guilty. No sound proof of perjurious conduct on behalf of the President has been provided as yet. Perjurious statements have to be deliberate and material. Even if the President deliberately ***lied under oath*** – his lies were not material to a case, which was later dismissed on the grounds of a ***lack of legal merit***. ***Legal hairsplitting and jousting*** are an integral part of the defence in most court cases, civil and criminal. It is a legitimate – and legal – component of any legal battle, especially one involving interpretations, ambiguous terminology and the substantiation of intentions. The President should not be denied the ***procedural and substantive rights*** available to all the other citizens of his country. Nor should he be subjected to a pre-judgment of his ***presumed guilt***."

AC: "This, precisely, is why an impeachment trial by the Senate is called for. It is only there that the President can credibly and rigorously establish his innocence. All I am saying is that IF the President is found by the Senate to have committed perjury – he should be impeached. Wherever legal hairsplitting and jousting is permissible as a legal tactic – it should and will be made available to the President. As to the pre-judgment by the Press – I agree with you, there is no place for it but, then, in this the President has been treated no differently than others. The pertinent fact is that perjury is a high misdemeanour, in the least, that is, an ***impeachable offence***."

DC: "It was clearly not the intention of the Fathers of our Constitution to include perjury in the list of impeachable offences. Treason is more like it. Moreover, to say that the President will receive a ***fair trial*** from the hands of his peers in the Senate – is to lie. The Senate and its committees is a political body, heavily tilted, currently,

against the President. No justice can be had where politics rears its ugly head. Bias and prejudice will rule this mock trial."

AC: "Man is a ***political animal***, said the Greek philosophers of antiquity. Where can you find an assembly of people free of politics? What is this discourse that we are having if not a political one? Is not the Supreme Court of the land a politically appointed entity? The Senate is no better and no worse, it is but a mirror, a reflection of the combined will of the people. Moreover, in pursuing the procedures of impeachment – the Senate will have proved its non-political mettle in this case. The nation, in all opinion polls, wants this matter dropped. If it is not – it is a proof of foresight and civil courage, of leadership and refusal to succumb to passing fads."

DC: "And what about my first argument – that perjury, even once proven, was not considered by the authors of the Constitution to have been an impeachable offence?"

AC: "The rules of the land – even the Constitution – are nothing but an agreement between those who subscribe to it and for as long as they do. It is a ***social contract***, a pact. Men – even the authors of the Constitution - being mortal, relegated the right to amend it and to interpret it to future generations. The Constitution is a vessel, each generation fills it as it sees fit. It is up to us to say what ***current meaning*** this document harbours. We are not to be constrained by the original intentions of the authors. These intentions are meaningless as circumstances change. It is what we read into the Constitution that forms its specific contents. With changing mores and values and with the passage of events – each generation generates its own version of this otherwise immortal set of principles."

DC: "I find it hard to accept that there is no limit to this ***creative deconstruction.*** Surely it is limited by common sense, confined to logic, subordinate to universal human principles. One can stretch the meanings of words only thus far. It takes a lot of legal hairsplitting to bring perjury – not proven yet – under one roof with treason."

AC: "Let us ignore the legal issues and leave them to their professionals. Let us talk about what really bothers us all, including you, I hope and trust. This President has ***lied***. He may have lied under oath, but he definitely lied on television and in the spacious rooms of the White House. He lied to his family, to his aides, to the nation, to Congress…"

DC: "For what purpose do you enumerate them?"

AC: "Because it is one thing to lie to your family and another thing to lie to Congress. A lie told to the nation, is of a different magnitude altogether. To lie to your closest aides and soi dissant confidantes – again is a separate matter…"

DC: "So you agree that there are lies and there are lies? ***That lying is not a monolithic offence***? That some lies are worse than others, some are permissible, some even ethically mandatory?"

AC: "No, I do not. To lie is to do a ***morally objectionable*** thing, no matter what the circumstances. It is better to shut up. Why didn't the President invoke the ***Fifth Amendment***, the right not to incriminate himself by his own lips?"

DC: "Because as much information is contained in abstaining to do something as in doing it and because if he did so, he would have provoked riotous ***rumours***.

Rumours are always worse than the truth. Rumours are always worse than the most defiled lie. It is better to lie than to provoke rumours."

AC: "Unless your lies are so clearly lies that you provoke rumours regarding what is true, thus inflicting a double blow upon the ***public peace*** that you were mandated to and undertook to preserve…"

DC: "Again, you make distinctions between types of lies – this time, by their efficacy. I am not sure this is progress. Let me give you examples of ***the three cases***: where one would do morally well to tell the truth, where one would achieve morally commendable outcomes only by lying and the case where lying is as morally permissible as telling the truth. Imagine a young sick adult. Her life is at peril but can be saved if she were to agree to consume a certain medicine. This medicament, however, will render her sterile. Surely, she must be told the truth. It should be entirely her decision how to continue his life: in person or through her progeny. Now, imagine that this young woman, having suffered greatly already, informed her doctor that should she learn that her condition is terminal and that she needs to consume medicines with grave side effects in order to prolong it or even to save it altogether – she is determined to take her life and has already procured the means to do so. Surely, it is mandatory to lie to this young woman in order to save her life. Imagine now the third situation: that she also made a statement that having a child is her only, predominant, all pervasive, wish in life. Faced with two conflicting statements, some may choose to reveal the truth to her – others, to withhold it, and with the same amount of ***moral justification***."

AC: "And what are we to learn from this?"

DC: "That the moral life is a chain of ***dilemmas***, almost none of which is solvable. The President may have lied in order to preserve his family, to protect his only child, to shield his aides from embarrassing legal scrutiny, even to protect his nation from what he perceived to have been the destructive zeal of the ***special prosecutor***. Some of his lies should be considered at least common, if not morally permissible."

AC: "This is a ***slippery slope***. There is no end to this moral relativism. It is a tautology. You say that in some cases there are morally permissible reasons to lie. When I ask you how come - you say to me that people lie only when they have good reasons to lie. But this the crux of your mistake: good reasons are not always sufficient, morally permissible, or even necessary reasons. Put more plainly: no one lies without a reason. Does the fact that a liar has a reason to lie – absolve him?"

DC: "Depends what is the ***reason***. This is what I tried to establish in my little sad example above. To lie about a sexual liaison – even under oath – may be morally permissible if the intention is to shield other meaningful individuals from harm, or in order to buttress the conditions, which will allow one to fulfil one's side of a contract. ***The President has a contract with the American people***, sealed in two elections. He has to perform. It is his duty no less than he has a duty to tell the truth. Conflict arises only when two equally powerful principles clash. The very fact that there is a controversy in the public demonstrates the moral ambiguity of this situation. The dysfunction of the American presidency has already cost trillions of dollars in a collapsing global economy. Who knows how many people died and will die in the pursuit of the high ***principle of vincit omnia veritas*** (the truth

always prevails)? If I could prove to you that one person – just one person - committed suicide as a result of the financial turmoil engendered by the Clinton affair, would you still stick to your lofty ideals?"

AC: "You inadvertently, I am sure, broached the heart of this matter. The President is in ***breach of his contracts***. Not one contract – but many. As all of us do – he has a contract with other fellow beings, he is a signatory to a ***Social Treaty***. One of the articles of this treaty calls to ***respect the Law*** by not lying under oath. Another calls for striving to maintain a generally truthful conduct towards the other signatories. The President has a ***contract with his wife***, which he clearly violated, by committing ***adultery***. Professing to be a believing man, he is also in breach of his ***contract with his God*** as set forth in the Holy Scriptures. But the President has another, very powerful and highly specific ***contract with the American people***. It is this contract that has been violated savagely and expressly by the President."

DC: "The American people does not seem to think so, but, prey, continue…"

AC: "Before I do, allow me just to repeat. To me, there is no moral difference between one lie and another. ***All lies are loathsome*** and lead, in the long run, to hell whatever the good intentions, which paved the way there. As far as I am concerned, President Clinton is a condemned man on these grounds only. But the lies one chooses and the victims he chooses to expose to his misbehaviour - reflect ***his personality, his inner world***, what type of human being he is. It is the only allowance I make. All lies are prohibited as all murders are. But there are murders most foul and there are lies most abominable and obnoxious. What are we to learn about the President from his choice

of arms and adversaries? That he is a paranoid, a narcissist, lacks empathy, immature, unable to postpone his satisfactions, to plan ahead, to foresee the outcomes of his actions. He has a sense of special, unwarranted entitlement, he judges his environment and the world, at large, erroneously. In short: he is dangerously wrong for the job that he has acquired through deception."

DC: "Through elections…"

AC: "Nay, through ***deception brought about by elections***. He lied to the American people about who he is and what he stands for. He did not frankly expose or discuss his weaknesses and limitations. He sold his voters on an invented, imaginary image, the product of spin-doctors and opinion polls, which had no common denominator with reality. This is gross deception."

DC: "But now that the American people know everything – they still prefer him over others, ***approve of his performance*** and applaud his professional achievements…"

AC: "This is the ***power of incumbency***. It was the same with Nixon until one month before his resignation. Or, do you sanction his actions as well?"

DC: "Frankly, I will compare President ***Clinton*** to President ***Andrew Johnson*** rather than to President ***Nixon***. The shattering discovery about Nixon was that he was an uncommon criminal. The shattering discovery about Clinton is that he is human. Congress chastises him not for having done what he did – in this he has many illustrious precedents. No, he is accused of being indiscreet, of failing to hide the truth, to evade the facts. He is ***reproached for his lack of efficiency*** at

concealment. He is criticized, therefore, both for being evasive and for not being sufficiently protective of his secrets. It is hard to win such a case, I tell you. It is also hypocritical in the extreme."

AC: "Do you agree that the President of the United States is party to a ***contract*** with the American People?"

DC: "Absolutely."

AC: "Would you say that he is enjoined by this contract to uphold the ***dignity of his office***?"

DC: "I think that most people would agree to this."

AC: "And do you agree with me that ***fornicating*** in the White House would tend to diminish rather than uphold this dignity – and, therefore, constitute a violation of this contract? That it shows utter disregard and disrespect to the institutions of this country and to their standing?"

DC: "I assume that you mean to say fornication in general, not only in the White House. To answer you, I must analyse this complex issue into its components. First, I assume that you agree with me that sex between ***consenting adults*** is almost always legally allowed and, depending on the circumstances and the culture, it is, usually, morally acceptable. The President's relationship with Miss Lewinsky did not involve sexual harassment or coercion and, therefore, was sex between consenting adults. Legally, there could be nothing against it. The problem, therefore, is cast in moral terms. Would you care to define it?"

AC: ***"The President has engaged in sexual acts – some highly unusual -with a woman much younger than he, in a building belonging to the American public and put***

at his disposal solely for the performance of his duties. Moreover, his acts constituted adultery, which is a morally reprehensible act. He acted secretly and tried to conceal the facts using expressly illegal and immoral means – namely by lying."

DC: "I took the pains of noting down everything you said. You said that the President has engaged in ***sexual acts*** and there can be no dispute between us that this does not constitute a problem. You said that some of them were highly unusual. This is a value judgement, so dependent on period and culture, that it is rendered meaningless by its derivative nature. What to one is repulsive is to the other a delightful stimulus. Of course, this applies only to consenting adults and when life itself is not jeopardized. Then you mentioned the ***age disparity*** between the President and his liaison. This is sheer bigotry. I am inclined to think that this statement is motivated more by envy than by moral judgement…"

AC: "I beg to differ! His advantages in both position and age do raise the spectre of ***exploitation***, even of ***abuse***! He took advantage of her, capitalized on her lack of experience and innocence, used her as a sex slave, an object, there just to fulfil his desires and realize his fantasies."

DC: "Then there is no meaning to the word ***consent***, nor to the legal ***age of consent***. The line must be drawn somewhere. The President did not make explicit promises and then did not own up to them. Expectations and anticipation can develop in total vacuum, in a manner unsubstantiated, not supported by any observable behaviour. It is an open question who was using who in this lurid tale – at least, who was hoping to use who. The President, naturally, had much more to offer to Miss

Lewinsky than she could conceivably have offered to him. Qui bono is a useful guide in reality as well as in mystery books."

AC: "This is again the same Presidential pattern of ***deceit, half truths and plain lies***. The President may not have promised anything explicitly – but he sure did implicitly, otherwise why would Miss Lewinsky have availed herself sexually? Even if we adopt your more benevolent version of events and assume that Miss Lewinsky approached this avowed and professional ***womanizer*** with the intention of taking advantage of him – clearly, a deal must have been struck. "

DC: "Yes, but we don't know its nature and its parameters. It is therefore useless to talk about this empty, hypothetical entity. You also said that he committed these acts of lust in a ***building*** belonging to the American public and put at his disposal solely for the performance of his duties. This is half-true, of course. This is also the home of the President, his castle. He has to endure a lot in order to occupy this mansion and the separation between private and public life is only on paper. Presidents have no private lives but only public ones. Why should we reproach them for ***mixing the public with the private***? This is a double standard: when it suits our predatory instincts, our hypocrisy and our search for a scapegoat – we disallow the private life of a President. When these same low drives can be satisfied by making this distinction – we trumpet it. We must make up our minds: either Presidents are not allowed to have private lives and then they should be perfectly allowed to engage in all manner of normally private behaviour in public and on public property (and even at the public's expense). Or the distinction is relevant – in which case we should adopt the "European model"

and not pry into the lives of our Presidents, not expose them, and not demand their public flagellation for very private sins."

AC: "This is a gross misrepresentation of the ***process*** that led to the current sorry state of affairs. The President got himself embroiled in numerous other legal difficulties long before the Monika Lewinsky story erupted. The special prosecutor was appointed to investigate Whitewater and other matters long before the President's sexual shenanigans hit the courts. The President lied under oath in connection with a private, civil lawsuit brought against him by Paula Jones. It is all the President's doing. Decapitating the messenger – the special prosecutor – is an old and defunct Roman habit."

DC: "Then you proceeded to accuse the President of ***adultery***. Technically, there can be no disagreement. The President's actions – however sexual acts are defined – constitute unequivocal adultery. But the legal and operational definitions of adultery are divorced from the emotional and moral discourse of the same phenomenon. We must not forget that you stated that the adulterous acts committed by the President have adversely affected the dignity of his office and this is what seems to have bothered you…"

AC: "Absolutely misrepresented. I do have a problem with adultery in general and I wholeheartedly disagree with it…"

DC: "I apologize. So, let us accord these two rather different questions – the separate treatment that they deserve. First, surely you agree with me that there can be no dignity where there is no truth, for you said so yourself. A ***marital relationship*** that fails abysmally to

provide the parties with sexual or emotional gratification and is maintained in the teeth of such failure – is a lie. It is a lie because it gives observers false information regarding the state of things. What is better – to continue a marriage of appearances and mutual hell – or to find emotional and sexual fulfilment elsewhere? When the pursuit of happiness is coupled with the refusal to pretend, to pose, in other words, to lie, isn't this commendable? President Clinton admitted to marital problems and there seems to be an incompatibility, which reaches to the roots of this bond between himself and his wife. Sometimes marriages start as one thing – passion, perhaps or self delusion – and end up as another: mutual acceptance, a warm habit, companionship. Many marriages withstand marital infidelity precisely because they are not conventional, or ideal marriages. By forgoing sex, a partnership is sometimes strengthened and a true, disinterested friendship is formed. I say that by insisting on being true to himself, by refusing to accept social norms of hypocrisy, conventions of make-belief and camouflage, by exposing the lacunas in his marriage, by, thus, redefining it and by pursuing his own sexual and emotional happiness – the President has acted honestly. He did not compromise the dignity of his office."

AC: "***Dysfunctional partnerships should be dissolved***. The President should have divorced prior to indulging his sexual appetite. Sexual exclusivity is an integral – possibly the most important – section of the marriage contract. The President ignored his vows, dishonoured his word, breached his contract with the First Lady."

DC: "People stay together only if they feel that the foundation upon which they based their relationship is still sound. Mr. Clinton and Mrs. Clinton redefined their

marriage to exclude ***sexual exclusivity***, an impossibility under the circumstances. But they did not exclude companionship and friendship. It is here that the President may have sinned, in lying to his best friend, his wife. Adultery is committed only when a party strays out of the confines of the marital contract. I postulate that the President was well within his agreement with Mrs. Clinton when he sought sexual gratification elsewhere."

AC: "Adultery is a sin not only against the partner. The marriage contract is signed by three parties: the man, the woman and God between them. The President ***sinned against God***. This cannot be ameliorated by any human approval or permission. Whether his wife accepted him as he is and disregarded his actions – is irrelevant. And if you are agnostic or an atheist, still you can replace the word ‘God' by the words ***‘Social Order'***. President Clinton's behaviour undermines the foundations of our social order. The family is the basic functional unit and its proper functioning is guaranteed by the security of sexual and emotional exclusivity. To be adulterous is to rebel against civilization. It is an act of high social and moral treason."

DC: "While I may share your nostalgia – I am compelled to inform you that even nostalgia is not what it used to be. There is no such thing as 'The Family'. There are a few competing models, some of them involving only a single person and his or her offspring. There is nothing to undermine. The ***social order*** is in such a flux that it is impossible to follow, let alone define or capture. Adultery is common. This could be a sign of the times – or the victory of honesty and openness over pretension and hypocrisy. No one can cast a stone at President Clinton in this day and age."

AC: "But that's precisely it! The President is not a mirror, a reflection of the popular will. Our President is a ***leader*** with awesome powers. These powers were given to him to enable him to set example, to bear a standard – to be a standard. I do demand of my President to be morally superior to me – and this is no hypocrisy. This is a job description. To lead, a leader needs to inspire shame and guilt through his model. People must look up to him, wish they were like him, hope, dream, aspire and conspire to be like him. A true leader provokes inner tumult, psychological conflicts, strong emotions – because he demands the impossible through the instance of his personality. A true leader moves people to sacrifice because he is worthy of their sacrifice, because he deserves it. He definitely does not set an example of moral disintegration, recklessness, short-sightedness and immaturity. The President is given unique power, status and privileges – only because he has been recognized as a unique and powerful and privileged individual. Whether such recognition has been warranted or not is what determines the quality of the presidency."

DC: "Not being a leader, or having been misjudged by the voters to be one – do not constitute impeachable offences. I reject your view of the presidency. It is too fascist for me, it echoes with the despicable Fuhrerprinzip. A leader is no different from the people that elected him. A leader has strong convictions shared by the majority of his compatriots. A leader also has the energy to implement the solutions that he proposes and the willingness to sacrifice certain aspects of his life (like his privacy) to do so. If a leader is a symbol of his people – then he must, in many ways, be like them. He cannot be as alien as you make him out to be. But then, if he is alien by virtue of being superior or by virtue of being possessed of superhuman

qualities – how can we, mere mortals, judge him? This is the logical fallacy in your argument: if the President is a symbol, then he must be very much similar to us and we should not subject him to a judgement more severe than the one meted to ourselves. If the President is omnipotent, omniscient, omnipresent, or otherwise, superhuman – then he is above our ability to judge. And if the President is a standard against whom we should calibrate our lives and actions – then he must reflect the mores of his times, the kaleidoscopic nature of the society that bred him, the flux of norms, conventions, paradigms and doctrines which formed the society which chose him. A standard too remote, too alien, too detached – will not do. People will ignore it and revert to other behavioural benchmarks and normative yardsticks. The President should, therefore, be allowed to be 'normal', he should be forgiven. After all forgiveness is as prominent a value as being truthful."

AC: "This allowance, alas, cannot be made. Even if I were to accept your thesis about 'The President as a regular Human Being' – still ***his circumstances are not regular***. The decisions that he faces – and very frequently - affect the lives of billions. The conflicting pressures that he is under, the gigantic amounts of information that he must digest, the enormity of the tasks facing him and the strains and stresses that are surely the results of these – all call for a special human alloy. If cracks are found in this alloy in room temperature – it raises doubts regarding its ability to withstand harsher conditions. If the President lies concerning a personal matter, no matter how significant – who will guarantee veracity rather than prevarication in matters more significant to us? If he is afraid of a court of law – how is he likely to command our armies in a time of war? If he is evasive in his answers to the Grand Jury – how can we rely on his resolve and

determination when confronting world leaders and when faced with extreme situations? If he loses his temper over petty matters – who will guarantee his coolheadedness when it is really required? If criminal in small, household matters – why not in the international arena?"

DC: "Because this continuum is false. There is little correlation between reactive patterns in the personal realms – and their far relatives in the public domain. Implication by generalization is a logical fallacy. The most adulterous, querulous, and otherwise despicable people have been superb, far sighted statesmen. The most generous, benevolent, easygoing ones have become veritable political catastrophes. ***The public realm is not the personal realm writ large.*** It is true that the leader's personality interacts with his circumstances to yield policy choices. But the relevance of his sexual predilections in this context is dubious indeed. It is true that his morals and general conformity to a certain value system will influence his actions and inactions – influence, but not determine them. It is true that his beliefs, experience, personality, character and temperament will colour the way he does things – but rarely what he does and rarely more than colour. Paradoxically, in times of crisis, there is a tendency to overlook the moral vices of a leader (or, for that matter, his moral virtues). If a proof was needed that moral and personal conduct are less relevant to proper leadership – this is it. When it really matters, we ignore these luxuries of righteousness and get on with the business of selecting a leader. Not a symbol, not a standard bearer, not a superman. Simply a human being – with all the flaws and weaknesses of one – who can chart the water and navigate to safety flying in the face of adverse circumstances."

AC: "Like everything else in life, electing a leader is a process of compromise, a negotiation between ***the ideal and the real.*** I just happen to believe that a good leader is the one who is closer to the ideal. You believe that one has to be realistic, not to dream, not to expect. To me, this is mental death. My criticism is a cry of the pain of disillusionment. But if I have to choose between deluding myself again and standing firmly on a corrupt and degenerate ground – I prefer, and always will, ***the levity of dreams***."

Importance (and Context)

When we say: "The President is an important person" what exactly do we mean by that? Where does the President derive his importance from? Evidently, he loses a large portion of the quality of being important when he ceases to be the President. We can therefore conclude that one's personal importance is inextricably linked to one's functions and position, past and present.

Similarly, imagine the omnipotent CEO of a mighty Fortune 500 corporation. No doubt he is widely considered to be an important personage. But his importance depends on his performance (on market share gained or lost, for instance). Technological innovation could render products obsolete and cripple formerly thriving enterprises. As the firm withers, so does the importance of its CEO.

Even so, importance is not an absolute trait. It is a derivative of relatedness. In other words, it is an emergent phenomenon that arises out of webs of relationships and networks of interactions. Importance is context-dependent.

Consider the Mayor or Elder of a village in one of the less developed countries. He is clearly not that important and the extent of his influence is limited. But what if the village were to become the sole human habitation left standing following a nuclear holocaust? What if the denizens of said erstwhile inconsequential spot were to be only survivors of such a conflagration? Clearly, such circumstances would render the Elder or Mayor of the village the most important man on Earth and his function the most coveted and crucial. As the context changes, so does one's importance.

Incest

"...An experience with an adult may seem merely a curious and pointless game, or it may be a hideous trauma leaving lifelong psychic scars. In many cases the reaction of parents and society determines the child's interpretation of the event. What would have been a trivial and soon-forgotten act becomes traumatic if the mother cries, the father rages, and the police interrogate the child."

(Encyclopedia Britannica, 2004 Edition)

In contemporary thought, incest is invariably associated with child abuse and its horrific, long-lasting, and often irreversible consequences. Incest is not such a clear-cut matter as it has been made out to be over millennia of taboo. Many participants claim to have enjoyed the act and its physical and emotional consequences. It is often the result of seduction. In some cases, two consenting and fully informed adults are involved.

Many types of relationships, which are defined as incestuous, are between genetically unrelated parties (a stepfather and a daughter), or between fictive kin or

between classificatory kin (that belong to the same matriline or patriline). In certain societies (the Native American or the Chinese) it is sufficient to carry the same family name (=to belong to the same clan) and marriage is forbidden.

Some incest prohibitions relate to sexual acts - others to marriage. In some societies, incest is mandatory or prohibited, according to the social class (Bali, Papua New Guinea, Polynesian and Melanesian islands). In others, the Royal House started a tradition of incestuous marriages, which was later imitated by lower classes (Ancient Egypt, Hawaii, Pre-Columbian Mixtec). Some societies are more tolerant of consensual incest than others (Japan, India until the 1930's, Australia).

The list is long and it serves to demonstrate the diversity of attitudes towards this most universal of taboos. Generally put, we can say that a prohibition to have sex with or marry a related person should be classified as an incest prohibition.

Perhaps the strongest feature of incest has been hitherto downplayed: that it is, essentially, an ***autoerotic act***.

Having sex with a first-degree blood relative is like having sex with oneself. It is a Narcissistic act and like all acts Narcissistic, it involves the objectification of the partner. The incestuous Narcissist over-values and then devalues his sexual partner. He is devoid of empathy (cannot see the other's point of view or put himself in her shoes).

For an in depth treatment of Narcissism and its psychosexual dimension, see: "Malignant Self Love - Narcissism Revisited" and "Frequently Asked Questions".

Paradoxically, it is the reaction of society that transforms incest into such a disruptive phenomenon. The condemnation, the horror, the revulsion and the attendant social sanctions interfere with the internal processes and dynamics of the incestuous family. It is from society that the child learns that something is horribly wrong, that he should feel guilty, and that the offending parent is a defective role model.

As a direct result, the formation of the child's Superego is stunted and it remains infantile, ideal, sadistic, perfectionist, demanding and punishing. The child's Ego, on the other hand, is likely to be replaced by a False Ego version, whose job it is to suffer the social consequences of the hideous act.

To sum up: society's reactions in the case of incest are pathogenic and are most likely to produce a Narcissistic or a Borderline patient. Dysempathic, exploitative, emotionally labile, immature, and in eternal search for Narcissistic Supply – the child becomes a replica of his incestuous and socially-castigated parent.

If so, why did human societies develop such pathogenic responses? In other words, why is incest considered a taboo in all known human collectives and cultures? Why are incestuous liaisons treated so harshly and punitively?

Freud said that incest provokes horror because it touches upon our forbidden, ambivalent emotions towards members of our close family. This ambivalence covers both aggression towards other members (forbidden and punishable) and (sexual) attraction to them (doubly forbidden and punishable).

Edward Westermarck proffered an opposite view that the

domestic proximity of the members of the family breeds sexual repulsion (the epigenetic rule known as the Westermarck effect) to counter naturally occurring genetic sexual attraction. The incest taboo simply reflects emotional and biological realities within the family rather than aiming to restrain the inbred instincts of its members, claimed Westermarck.

Though much-disputed by geneticists, some scholars maintain that the incest taboo may have been originally designed to prevent the degeneration of the genetic stock of the clan or tribe through intra-family breeding (closed endogamy). But, even if true, this no longer applies. In today's world incest rarely results in pregnancy and the transmission of genetic material. Sex today is about recreation as much as procreation.

Good contraceptives should, therefore, encourage incestuous, couples. In many other species inbreeding or straightforward incest are the norm. Finally, in most countries, incest prohibitions apply also to non-genetically-related people.

It seems, therefore, that the incest taboo was and is aimed at one thing in particular: to preserve the family unit and its proper functioning.

Incest is more than a mere manifestation of a given personality disorder or a paraphilia (incest is considered by many to be a subtype of pedophilia). It harks back to the very nature of the family. It is closely entangled with its functions and with its contribution to the development of the individual within it.

The family is an efficient venue for the transmission of accumulated property as well as information - both

horizontally (among family members) and vertically (down the generations). The process of socialization largely relies on these familial mechanisms, making the family the most important agent of socialization by far.

The family is a mechanism for the allocation of genetic and material wealth. Worldly goods are passed on from one generation to the next through succession, inheritance and residence. Genetic material is handed down through the sexual act. It is the mandate of the family to increase both by accumulating property and by marrying outside the family (exogamy).

Clearly, incest prevents both. It preserves a limited genetic pool and makes an increase of material possessions through intermarriage all but impossible.

The family's roles are not merely materialistic, though.

One of the main businesses of the family is to teach to its members self control, self regulation and healthy adaptation. Family members share space and resources and siblings share the mother's emotions and attention. Similarly, the family educates its young members to master their drives and to postpone the self-gratification which attaches to acting upon them.

The incest taboo conditions children to control their erotic drive by abstaining from ingratiating themselves with members of the opposite sex within the same family. There could be little question that incest constitutes a lack of control and impedes the proper separation of impulse (or stimulus) from action.

Additionally, incest probably interferes with the defensive aspects of the family's existence. It is through the family that aggression is legitimately channeled, expressed and

externalized. By imposing discipline and hierarchy on its members, the family is transformed into a cohesive and efficient war machine. It absorbs economic resources, social status and members of other families. It forms alliances and fights other clans over scarce goods, tangible and intangible.

This efficacy is undermined by incest. It is virtually impossible to maintain discipline and hierarchy in an incestuous family where some members assume sexual roles not normally theirs. Sex is an expression of power – emotional and physical. The members of the family involved in incest surrender power and assume it out of the regular flow patterns that have made the family the formidable apparatus that it is.

These new power politics weaken the family, both internally and externally. Internally, emotive reactions (such as the jealousy of other family members) and clashing authorities and responsibilities are likely to undo the delicate unit. Externally, the family is vulnerable to ostracism and more official forms of intervention and dismantling.

Finally, the family is an identity endowment mechanism. It bestows identity upon its members. Internally, the members of the family derive meaning from their position in the family tree and its "organization chart" (which conform to societal expectations and norms). Externally, through exogamy, by incorporating "strangers", the family absorbs other identities and thus enhances social solidarity (Claude Levy-Strauss) at the expense of the solidarity of the nuclear, original family.

Exogamy, as often noted, allows for the creation of extended alliances. The "identity creep" of the family is in

total opposition to incest. The latter increases the solidarity and cohesiveness of the incestuous family – but at the expense of its ability to digest and absorb other identities of other family units. Incest, in other words, adversely affects social cohesion and solidarity.

Lastly, as aforementioned, incest interferes with well-established and rigid patterns of inheritance and property allocation. Such disruption is likely to have led in primitive societies to disputes and conflicts - including armed clashes and deaths. To prevent such recurrent and costly bloodshed was one of the intentions of the incest taboo.

The more primitive the society, the more strict and elaborate the set of incest prohibitions and the fiercer the reactions of society to violations. It appears that the less violent the dispute settlement methods and mechanisms in a given culture – the more lenient the attitude to incest.

The incest taboo is, therefore, a cultural trait. Protective of the efficient mechanism of the family, society sought to minimize disruption to its activities and to the clear flows of authority, responsibilities, material wealth and information horizontally and vertically.

Incest threatened to unravel this magnificent creation - the family. Alarmed by the possible consequences (internal and external feuds, a rise in the level of aggression and violence) – society introduced the taboo. It came replete with physical and emotional sanctions: stigmatization, revulsion and horror, imprisonment, the demolition of the errant and socially mutant family cell.

As long as societies revolve around the relegation of power, its sharing, its acquisition and dispensation – there

will always exist an incest taboo. But in a different societal and cultural setting, it is conceivable not to have such a taboo. We can easily imagine a society where incest is extolled, taught, and practiced - and out-breeding is regarded with horror and revulsion.

The incestuous marriages among members of the royal households of Europe were intended to preserve the familial property and expand the clan's territory. They were normative, not aberrant. Marrying an outsider was considered abhorrent.

An incestuous society - where incest is the norm - is conceivable even today.

Two out of many possible scenarios:

1. "The Lot Scenario"

A plague or some other natural disaster decimate the population of planet Earth. People remain alive only in isolated clusters, co-habiting only with their closest kin. Surely incestuous procreation is preferable to virtuous extermination. Incest becomes normative.

Incest is as entrenched a taboo as cannibalism. Yet, it is better to eat the flesh of your dead football team mates than perish high up on the Andes (a harrowing tale of survival recounted in the book and eponymous film, "Alive").

2. The Egyptian Scenario

Resources become so scarce that family units scramble to keep them exclusively within the clan.

Exogamy - marrying outside the clan - amounts to a unilateral transfer of scarce resources to outsiders and strangers. Incest becomes an economic imperative.

An incestuous society would be either utopian or dystopian, depending on the reader's point of view - but that it is possible is doubtless.

Industrial Action and Competition

Should the price of labor (wages) and its conditions be left entirely to supply and demand in a free market - or should they be subject to regulation, legislation, and political action?

Is industrial action a form of monopolistic and , therefore, anti-competitive behavior?

Should employers be prevented from hiring replacement labor in lieu of their striking labor-force? Do workers have the right to harass and intimidate such "strike breakers" in picket lines?

In this paper, I aim to study anti-trust and competition laws as they apply to business and demonstrate how they can equally be applied to organized labor.

*A. **THE PHILOSOPHY OF COMPETITION***

The aims of competition (anti-trust) laws are to ensure that consumers pay the lowest possible price (the most efficient price) coupled with the highest quality of the goods and services which they consume. Employers consume labor and, in theory, at least, have the same right.

This, according to current economic theories, can be achieved only through effective competition. Competition

not only reduces particular prices of specific goods and services - it also tends to have a deflationary effect by reducing the general price level. It pits consumers against producers, producers against other producers (in the battle to win the heart of consumers), labor against competing labor (for instance, migrants), and even consumers against consumers (for example in the healthcare sector in the USA).

This perpetual conflict miraculously increases quality even as prices decrease. Think about the vast improvement on both scores in electrical appliances. The VCR and PC of yesteryear cost thrice as much and provided one third the functions at one tenth the speed.

Yet, labor is an exception. Even as it became more plentiful - its price skyrocketed unsustainably in the developed nations of the world. This caused a shift of jobs overseas to less regulated and cheaper locations (offshoring and outsourcing).

Competition has innumerable advantages:

0.It encourages manufacturers and service providers (such as workers) to be more efficient, to better respond to the needs of their customers (the employers), to innovate, to initiate, to venture. It optimizes the allocation of resources at the firm level and, as a result, throughout the national economy.
More simply: producers do not waste resources (capital), consumers and businesses pay less for the same goods and services and, as a result, consumption grows to the benefit of all involved.

b. The other beneficial effect seems, at first sight, to be an adverse one: competition weeds out the

> failures, the incompetent, the inefficient, the fat and slow to respond to changing circumstances. Competitors pressure one another to be more efficient, leaner and meaner. This is the very essence of capitalism. It is wrong to say that only the consumer benefits. If a firm improves itself, re-engineers its production processes, introduces new management techniques, and modernizes in order to fight the competition, it stands to reason that it will reap the rewards. Competition benefits the economy, as a whole, the consumers and other producers by a process of natural economic selection where only the fittest survive. Those who are not fit to survive die out and cease to waste scarce resources.

Thus, paradoxically, the poorer the country, the less resources it has - the more it is in need of competition. Only competition can secure the proper and most efficient use of its scarce resources, a maximization of its output and the maximal welfare of its citizens (consumers).

Moreover, we tend to forget that the biggest consumers are businesses (firms) though the most numerous consumers are households. If the local phone company is inefficient (because no one competes with it, being a monopoly) - firms suffer the most: higher charges, bad connections, lost time, effort, money and business. If the banks are dysfunctional (because there is no foreign competition), they do not properly service their clients and firms collapse because of lack of liquidity. It is the business sector in poor countries which should head the crusade to open the country to competition.

Unfortunately, the first discernible results of the introduction of free marketry are unemployment and

business closures. People and firms lack the vision, the knowledge and the wherewithal needed to sustain competition. They fiercely oppose it and governments throughout the world bow to protectionist measures and to trade union activism.

To no avail. Closing a country to competition (including in the labor market) only exacerbates the very conditions which necessitated its opening up in the first place. At the end of such a wrong path awaits economic disaster and the forced entry of competitors. A country which closes itself to the world is forced to sell itself cheaply as its economy becomes more and more inefficient, less and less competitive.

Competition Laws aim to establish fairness of commercial conduct among entrepreneurs and competitors which are the sources of said competition and innovation. But anti-trust and monopoly legislation and regulation should be as rigorously applied to the holy cow of labor and, in particular, organized labor.

Experience - buttressed by research - helped to establish the following four principles:

1. There should be no barriers to the entry of new market players (barring criminal and moral barriers to certain types of activities and to certain goods and services offered). In other words, there should be no barrier to hiring new or replacement workers at any price and in any conditions. Picket lines are an anti-competitive practice.

1. The larger the operation, the greater the economies of scale (and, usually, the lower the prices of goods and services).

This, however, is not always true. There is a Minimum Efficient Scale - MES - beyond which prices begin to rise due to the monopolization of the markets. This MES was empirically fixed at 10% of the market in any one good or service. In other words: trade and labor unions should be encouraged to capture up to 10% of their "market" (in order to allow prices to remain stable in real terms) and discouraged to cross this barrier, lest prices (wages) tend to rise again.

1. Efficient competition does not exist when a market is controlled by less than 10 firms with big size differences. An oligopoly should be declared whenever 4 firms control more than 40% of the market and the biggest of them controls more than 12% of it. This applies to organized labor as well.

1. A competitive price (wage) is comprised of a minimal cost plus an equilibrium "profit" (or premium) which does not encourage either an exit of workers from the workforce (because it is too low), nor their entry (because it is too high).

Left to their own devices, firms tend to liquidate competitors (predation), buy them out or collude with them to raise prices. The 1890 Sherman Antitrust Act in the USA forbade the latter (section 1) and prohibited monopolization or dumping as a method to eliminate competitors.

Later acts (Clayton, 1914 and the Federal Trade Commission Act of the same year) added forbidden activities: tying arrangements, boycotts, territorial divisions, non-competitive mergers, price discrimination, exclusive dealing, unfair acts, practices and methods.

Both consumers and producers who felt offended were given access to the Justice Department and to the FTC or the right to sue in a federal court and be eligible to receive treble damages.

It is only fair to mention the "intellectual competition", which opposes the above premises. Many important economists think that competition laws represent an unwarranted and harmful intervention of the State in the markets. Some believe that the State should own important industries (J.K. Galbraith), others - that industries should be encouraged to grow because only size guarantees survival, lower prices and innovation (Ellis Hawley). Yet others support the cause of laissez faire (Marc Eisner).

These three antithetical approaches are, by no means, new. One leads to socialism and communism, the other to corporatism and monopolies and the third to jungle-ization of the market (what the Europeans derisively call: the Anglo-Saxon model).

It is politically incorrect to regard labor as a mere commodity whose price should be determined exclusively by market signals and market forces. This view has gone out of fashion more than 100 years ago with the emergence of powerful labor organizations and influential left-wing scholars and thinkers.

But globalization changes all that. Less regulated worldwide markets in skilled and unskilled (mainly migrant) workers rendered labor a tradable service. As the labor movement crumbled and membership in trade unions with restrictive practices dwindled, wages are increasingly determined by direct negotiations between individual employees and their prospective or actual

employers.

*B. **HISTORICAL AND LEGAL CONSIDERATIONS***

Why does the State involve itself in the machinations of the free market? Because often markets fail or are unable or unwilling to provide goods, services, or competition. The purpose of competition laws is to secure a competitive marketplace and thus protect the consumer from unfair, anti-competitive practices. The latter tend to increase prices and reduce the availability and quality of goods and services offered to the consumer.

Such state intervention is usually done by establishing a governmental Authority with full powers to regulate the markets and ensure their fairness and accessibility to new entrants. Lately, international collaboration between such authorities yielded a measure of harmonization and coordinated action (especially in cases of trusts which are the results of mergers and acquisitions).

There is no reason why not to apply this model to labor. Consumers (employers) in the market for labor deserve as much protection as consumers of traditional goods and commodities. Anti-competitive practices in the employment marketplace should be rooted out vigorously.

Competition policy is the antithesis of industrial policy. The former wishes to ensure the conditions and the rules of the game - the latter to recruit the players, train them and win the game. The origin of the former is in the USA during the 19th century and from there it spread to (really was imposed on) Germany and Japan, the defeated countries in the 2nd World War. The European Community (EC) incorporated a competition policy in articles 85 and 86 of the Rome Convention and in Regulation 17 of the

Council of Ministers, 1962.

Still, the two most important economic blocks of our time have different goals in mind when implementing competition policies. The USA is more interested in economic (and econometric) results while the EU emphasizes social, regional development and political consequences. The EU also protects the rights of small businesses more vigorously and, to some extent, sacrifices intellectual property rights on the altar of fairness and the free movement of goods and services.

Put differently: the USA protects the producers and the EU shields the consumer. The USA is interested in the maximization of output even at a heightened social cost - the EU is interested in the creation of a just society, a mutually supportive community, even if the economic results are less than optimal.

As competition laws go global and are harmonized across national boundaries, they should be applied rigorously to global labor markets as well.

For example: the 29 (well-off) members of the Organization for Economic Cooperation and Development (OECD) formulated rules governing the harmonization and coordination of international antitrust/competition regulation among its member nations ("The Revised Recommendation of the OECD Council Concerning Cooperation between Member Countries on Restrictive Business Practices Affecting International Trade," OECD Doc. No. C(86)44 (Final) (June 5, 1986), also in 25 International Legal Materials 1629 (1986).

A revised version was reissued. According to it, ***" … Enterprises should refrain from abuses of a dominant***

market position; permit purchasers, distributors, and suppliers to freely conduct their businesses; refrain from cartels or restrictive agreements; and consult and cooperate with competent authorities of interested countries".

An agency in one of the member countries tackling an antitrust case, usually notifies another member country whenever an antitrust enforcement action may affect important interests of that country or its nationals (see: OECD Recommendations on Predatory Pricing, 1989).

The United States has bilateral antitrust agreements with Australia, Canada, and Germany, which was followed by a bilateral agreement with the EU in 1991. These provide for coordinated antitrust investigations and prosecutions. The United States has thus reduced the legal and political obstacles which faced its extraterritorial prosecutions and enforcement.

The agreements require one party to notify the other of imminent antitrust actions, to share relevant information, and to consult on potential policy changes. The EU-U.S. Agreement contains a "comity" principle under which each side promises to take into consideration the other's interests when considering antitrust prosecutions. A similar principle is at the basis of Chapter 15 of the North American Free Trade Agreement (NAFTA) - cooperation on antitrust matters.

The United Nations Conference on Restrictive Business Practices adopted a code of conduct in 1979/1980 that was later integrated as a U.N. General Assembly Resolution [U.N. Doc. TD/RBP/10 (1980)]: "The Set of Multilaterally Agreed Equitable Principles and Rules".

According to its provisions, "independent enterprises should refrain from certain practices when they would limit access to markets or otherwise unduly restrain competition".

The following business practices are prohibited. They are fully applicable - and should be unreservedly applied - to trade and labor unions. Anti-competitive practices are rampant in organized labor. The aim is to grant access to to a "cornered market" and its commodity (labor) only to those consumers (employers) who give in and pay a non-equilibrium, unnaturally high, price (wage). Competitors (non-organized and migrant labor) are discouraged, heckled, intimidated, and assaulted, sometimes physically.

All these are common unionized labor devices - all illegal under current competition laws:

1. Agreements to fix prices (including export and import prices);

1. Collusive tendering;

1. Market or customer allocation (division) arrangements;

1. Allocation of sales or production by quota;

1. Collective action to enforce arrangements, e.g., by concerted refusals to deal (industrial action, strikes);

1. Concerted refusal to sell to potential importers; and

1. Collective denial of access to an arrangement, or association, where such access is crucial to

competition and such denial might hamper it. In addition, businesses are forbidden to engage in the abuse of a dominant position in the market by limiting access to it or by otherwise restraining competition by:

a. Predatory behavior towards competitors;

b. Discriminatory pricing or terms or conditions in the supply or purchase of goods or services;

c. Mergers, takeovers, joint ventures, or other acquisitions of control;

d. Fixing prices for exported goods or resold imported goods;

e. Import restrictions on legitimately-marked trademarked goods;

f. Unjustifiably - whether partially or completely - refusing to deal on an enterprise's customary commercial terms, making the supply of goods or services dependent on restrictions on the distribution or manufacturer of other goods, imposing restrictions on the resale or exportation of the same or other goods, and purchase "tie-ins".

C. ANTI - COMPETITIVE STRATEGIES

(Based on Porter's book - "Competitive Strategy")

Anti-competitive practices influence the economy by

discouraging foreign investors, encouraging inefficiencies and mismanagement, sustaining artificially high prices, misallocating scarce resources, increasing unemployment, fostering corrupt and criminal practices and, in general, preventing the growth that the country or industry could have attained otherwise.

Strategies for Monopolization

Exclude competitors from distribution channels.

This is common practice in many countries. Open threats are made by the manufacturers of popular products: "If you distribute my competitor's products - you cannot distribute mine. So, choose." Naturally, retail outlets, dealers and distributors always prefer the popular product to the new, competing, one. This practice not only blocks competition - but also innovation, trade and choice or variety.

Organized labor acts in the same way. The threaten the firm: "If you hire these migrants or non-unionized labor - we will deny you our work (we will strike)." They thus exclude the competition and create an artificial pricing environment with distorted market signals.

Buy up competitors and potential competitors.

There is nothing wrong with that. Under certain circumstances, this is even desirable. Consider the Banking System: it is always better to have fewer banks with larger capital than many small banks with inadequate capital inadequacy.

So, consolidation is sometimes welcome, especially where scale enhances viability and affords a higher degree of consumer protection. The line is thin. One should apply

both quantitative and qualitative criteria. One way to measure the desirability of such mergers and acquisitions (M&A) is the level of market concentration following the M&A. Is a new monopoly created? Will the new entity be able to set prices unperturbed? stamp out its other competitors? If so, it is not desirable and should be prevented.

Every merger in the USA must be approved by the antitrust authorities. When multinationals merge, they must get the approval of all the competition authorities in all the territories in which they operate. The purchase of "Intuit" by "Microsoft" was prevented by the antitrust department (the "Trust-busters"). A host of airlines was conducting a drawn out battle with competition authorities in the EU, UK and the USA lately.

Probably the only industry exempt from these reasonable and beneficial restrictions is unionized labor. In its heyday, a handful of unions represented all of labor in any given national territory. To this very day, there typically is no more than one labor union per industry - a monopoly on labor in that sector.

Use predatory [below-cost] pricing (also known as dumping) to eliminate competitors or use price retaliation to "discipline" competitors.

This tactic is mostly used by manufacturers in developing or emerging economies and in Japan, China, and Southeast Asia. It consists of "pricing the competition out of the market".

The predator sells his products at a price which is lower even than the costs of production. The result is that he swamps the market, driving out all other competitors. The

last one standing, he raises his prices back to normal and, often, above normal. The dumper loses money in the dumping operation and compensates for these losses by charging inflated prices after having the competition eliminated.

Through dumping or even unreasonable and excessive discounting. This could be achieved not only through the price itself. An exceedingly long credit term offered to a distributor or to a buyer is a way of reducing the price. The same applies to sales, promotions, vouchers, gifts. They are all ways to reduce the effective price. The customer calculates the money value of these benefits and deducts them from the price.

This is one anti-competitive practice that is rarely by organized labor.

Raise scale-economy barriers.

Take unfair advantage of size and the resulting scale economies to force conditions upon the competition or upon the distribution channels. In many countries unionized labor lobbies for legislation which fits its purposes and excludes competitors (such as migrant workers, non-unionized labor, or overseas labor in offshoring and outsourcing deals).

Increase "market power (share) and hence profit potential".

This is a classic organized labor stratagem. From its inception, trade unionism was missionary and by means fair and foul constantly recruited new members to increase its market power and prowess. It then leveraged its membership to extract and extort "profits and premium" (excess wages) from employees.

Study the industry's "potential" structure and ways it can be made less competitive.

Even contemplating crime or merely planning it are prohibited. Many industries have "think tanks" and experts whose sole function is to show their firm the ways to minimize competition and to increase market share. Admittedly, the line is very thin: when does a Marketing Plan become criminal?

But, with the exception of the robber barons of the 19th century, no industry ever came close to the deliberate, publicly acknowledged, and well-organized attempt by unionized labor to restructure the labor market to eliminate competition altogether. Everything from propaganda "by word and deed" to intimidation and violence was used.

Arrange for a "rise in entry barriers to block later entrants" and "inflict losses on the entrant".

This could be done by imposing bureaucratic obstacles (of licencing, permits and taxation), scale hindrances (prevent the distribution of small quantities or render it non-profitable), by maintaining "old boy networks" which share political clout and research and development, or by using intellectual property rights to block new entrants. There are other methods too numerous to recount. An effective law should block any action which prevents new entry to a market.

Again, organized labor is the greatest culprit of all. In many industries, it is impossible, on pain of strike, to employ or to be employed without belonging to a union. The members of most unions must pay member dues, possess strict professional qualifications, work according

to rigid regulations and methods, adhere to a division of labor with members of other unions, and refuse employment in certain circumstances - all patently anti-competitive practices.

Buy up firms in other industries "as a base from which to change industry structures" there.

This is a way of securing exclusive sources of supply of raw materials, services and complementing products. If a company owns its suppliers and they are single or almost single sources of supply - in effect it has monopolized the market. If a software company owns another software company with a product which can be incorporated in its own products - and the two have substantial market shares in their markets - then their dominant positions reinforce each other's.

Federations and confederations of labor unions are, in effect, cartels, or, at best, oligopolies. By co-opting suppliers of alternative labor, organized labor has been striving consistently towards the position of a monopoly - but without the cumbersome attendant regulation.

"Find ways to encourage particular competitors out of the industry".

If you can't intimidate your competitors you might wish to "make them an offer that they cannot refuse". One way is to buy them, to bribe their key personnel, to offer tempting opportunities in other markets, to swap markets (I will give you my market share in a market which I do not really care for and you will give me your market share in a market in which we are competitors). Other ways are to give the competitors assets, distribution channels and so on on condition that they collude in a cartel.

These are daily occurrences in organized labor. Specific labor unions regularly trade among themselves "markets", workplaces, and groups of members in order to increase their market share and enhance their leverage on the consumers of their "commodity" (the employers).

"Send signals to encourage competition to exit" the industry.

Such signals could be threats, promises, policy measures, attacks on the integrity and quality of the competitor, announcement that the company has set a certain market share as its goal (and will, therefore, not tolerate anyone trying to prevent it from attaining this market share) and any action which directly or indirectly intimidates or convinces competitors to leave the industry. Such an action need not be positive - it can be negative, need not be done by the company - can be done by its political proxies, need not be planned - could be accidental. The results are what matters.

Organized labor regards migrant workers, non-unionized labor, and overseas labor in offshoring and outsourcing deals as the "competition". Trade unions in specific industries and workplaces do their best to intimidate newcomers, exclude them from the shop floor, or "convince" them to exit the market.

How to 'Intimidate' Competitors

Raise "mobility" barriers to keep competitors in the least-profitable segments of the industry.

This is a tactic which preserves the appearance of competition while subverting it. Certain segments, usually less profitable or too small to be of interest, or with dim growth prospects, or which are likely to be opened to

fierce domestic and foreign competition are left to new entrants. The more lucrative parts of the markets are zealously guarded by the company. Through legislation, policy measures, withholding of technology and know-how - the firm prevents its competitors from crossing the river into its protected turf.

Again, long a labor strategy. Organized labor has neglected many service industries to concentrate on its core competence - manufacturing. But it has zealously guarded this bastion of traditional unionism and consistently hindered innovation and competition.

Let little firms "develop" an industry and then come in and take it over.

This is precisely what Netscape is saying that Microsoft had done to it. Netscape developed the now lucrative browser application market. Microsoft proved wrong to have discarded the Internet as a fad. As the Internet boomed, Microsoft reversed its position and came up with its own (then, technologically inferior) browser (the Internet Explorer).

It offered it free (sound suspiciously like dumping) bundled with its operating system, "Windows". Inevitably it captured more than 60% of the market, vanquishing Netscape in the [process. It is the view of the antitrust authorities in the USA that Microsoft utilized its dominant position in one market (that of Operating Systems) to annihilate a competitor in another market (that of browsers).

Labor unions often collude in a similar fashion. They assimilate independent or workplace-specific unions and labor organizations and they leverage their monopolistic

position in one market to subvert competition in other markets.

Organized labor has been known to use these anti-competitive tactics as well:

Engage in "promotional warfare" by "attacking market shares of others".

This is when the gist of a marketing, lobbying, or advertising campaign is to capture the market share of the competition (for instance, migrant workers, or workers overseas). Direct attack is then made on the competition just in order to abolish it. To sell more in order to maximize profits is allowed and meritorious - to sell more in order to eliminate the competition is wrong and should be disallowed.

Establish a "pattern" of severe retaliation against challengers to "communicate commitment" to resist efforts to win market share.

Again, this retaliation can take a myriad of forms: malicious advertising, a media campaign, adverse legislation, blocking distribution channels, staging a hostile bid in the stock exchange just in order to disrupt the proper and orderly management of the competitor, or more classical forms of industrial action such as the strike and the boycott. Anything which derails the competitor or consumer (employer) whenever he makes headway, gains a larger market share, launches a new product, reduces the prices he pays for labor - can be construed as a "pattern of retaliation".

Maintain excess capacity to be used for "fighting" purposes to discipline ambitious rivals.

Such excess capacity could belong to the offending firm or - through cartel or other arrangements - to a group of offending firms. A labor union, for instance, can selectively aid one firm by being lenient and forthcoming even as it destroys another firm by rigidly insisting on unacceptable and ruinous demands.

Publicize one's "commitment to resist entry" into the market.

Publicize the fact that one has a "monitoring system" to detect any aggressive acts of competitors.

Announce in advance "market share targets" to intimidate competitors into yielding their market share.

How to Proliferate Brand Names

Contract with customers (employers) to "meet or match all price cuts (offered by the competition)" thus denying rivals any hope of growth through price competition (Rarely used by organized labor).

Secure a big enough market share to "corner" the "learning curve," thus denying rivals an opportunity to become efficient.

Efficiency is gained by an increase in market share. Such an increase leads to new demands imposed by the market, to modernization, innovation, the introduction of new management techniques (example: Just In Time inventory management), joint ventures, training of personnel, technology transfers, development of proprietary intellectual property and so on. Deprived of a growing market share - the competitor does not feel the need to learn and to better itself. In due time, it dwindles and dies. This tactic is particularly used against overseas

contractors which provide cheap labor in offshoring or outsourcing deals.

Acquire a wall of "defensive" laws, regulations, court precedents, and political support to deny competitors unfettered access to the market.

"Harvest" market position in a no-growth industry by raising prices, lowering quality, and stopping all investment and in it. Trade unions in smokestack industries often behave this way.

Create or encourage capital scarcity.

By colluding with sources of financing (e.g., regional, national, or investment banks), by absorbing any capital offered by the State, by the capital markets, through the banks, by spreading malicious news which serve to lower the credit-worthiness of the competition, by legislating special tax and financing loopholes and so on.

Introduce high advertising-intensity.

This is very difficult to measure. There are no objective criteria which do not go against the grain of the fundamental right to freedom of expression. However, truth in advertising should be strictly observed. Practices such as dragging the competition (e.g., an independent labor union, migrant workers, overseas contract workers) through the mud or derogatorily referring to its products or services in advertising campaigns should be banned and the ban should be enforced.

Proliferate "brand names" to make it too expensive for small firms to grow.

By creating and maintaining a host of absolutely

unnecessary brand names (e.g., unions), the competition's brand names are crowded out. Again, this cannot be legislated against. A firm has the right to create and maintain as many brand names as it sees fit. In the long term, the market exacts a price and thus punishes such a union because, ultimately, its own brand name suffers from the proliferation.

Get a "corner" (control, manipulate and regulate) on raw materials, government licenses, contracts, subsidies, and patents (and, of course, prevent the competition from having access to them).

Build up "political capital" with government bodies; overseas, get "protection" from "the host government".

'Vertical' Barriers

Practice a "preemptive strategy" by capturing all capacity expansion in the industry (simply unionizing in all the companies that own or develop it).

This serves to "deny competitors enough residual demand". Residual demand, as we previously explained, causes firms to be efficient. Once efficient, they develop enough power to "credibly retaliate" and thereby "enforce an orderly expansion process" to prevent overcapacity

Create "switching" costs.

Through legislation, bureaucracy, control of the media, cornering advertising space in the media, controlling infrastructure, owning intellectual property, owning, controlling or intimidating distribution channels and suppliers and so on.

Impose vertical "price squeezes".

By owning, controlling, colluding with, or intimidating suppliers and distributors of labor, marketing channels and wholesale and retail outlets into not collaborating with the competition.

Practice vertical integration (buying suppliers and distribution and marketing channels of labor).

This has the following effects:

The union gains a access into marketing and business information in the industry. It defends itself against a supplier's pricing power.

It defends itself against foreclosure, bankruptcy and restructuring or reorganization. Owning your potential competitors (for instance, private employment and placement agencies) means that the supplies do not cease even when payment is not affected, for instance.

The union thus protects proprietary information from competitors - otherwise it might be forced to give outsiders access to its records and intellectual property.

It raises entry and mobility barriers against competitors. This is why the State should legislate and act against any purchase, or other types of control of suppliers and marketing channels which service competitors and thus enhance competition.

It serves to "prove that a threat of full integration is credible" and thus intimidate competitors.

Finally, it gets "detailed cost information" in an adjacent industry (but doesn't integrate it into a "highly competitive industry").

"Capture distribution outlets" by vertical integration to "increase barriers".

How to 'Consolidate' the Industry - The Unionized Labor Way

Send "signals" to threaten, bluff, preempt, or collude with competitors.

Use a "fighting brand" of laborers (low-priced workers used only for price-cutting).

Use "cross parry" (retaliate in another part of a competitor's market).

Harass competitors with antitrust, labor-related, and anti-discrimination lawsuits and other litigious techniques.

Use "brute force" to attack competitors or use "focal points" of pressure to collude with competitors on price.

"Load up customers (employers)" at cut-rate prices to "deny new entrants a base" and force them to "withdraw" from market.

Practice "buyer selection," focusing on those that are the most "vulnerable" (easiest to overcharge) and discriminating against and for certain types of consumers (employers).

"Consolidate" the industry so as to "overcome industry fragmentation".

This last argument is highly successful with US federal courts in the last decade. There is an intuitive feeling that few players make for a better market and that a consolidated industry is bound to be more efficient, better

able to compete and to survive and, ultimately, better positioned to lower prices, to conduct costly research and development and to increase quality. In the words of Porter: ***"(The) pay-off to consolidating a fragmented industry can be high because... small and weak competitors offer little threat of retaliation."***

Time one's own capacity additions; never sell old capacity "to anyone who will use it in the same industry" and buy out "and retire competitors' capacity".

Infinity and the Infinite

Finiteness has to do with the existence of boundaries. Intuitively, we feel that where there is a separation, a border, a threshold – there is bound to be at least one thing finite out of a minimum of two. This, of course, is not true. Two infinite things can share a boundary. Infinity does not imply symmetry, let alone isotropy. An entity can be infinite to its "left" – and bounded on its right. Moreover, finiteness can exist where no boundaries can. Take a sphere: it is finite, yet we can continue to draw a line on its surface infinitely. The "boundary", in this case, is conceptual and arbitrary: if a line drawn on the surface of a sphere were to reach its starting point – then it is finite. Its starting point is the boundary, arbitrarily determined to be so by us.

This arbitrariness is bound to appear whenever the finiteness of something is determined by us, rather than "objectively, by nature". A finite series of numbers is a fine example. WE limit the series, we make it finite by imposing boundaries on it and by instituting "rules of membership": "A series of all the real numbers up to and including 1000" . Such a series has no continuation (after the number 1000). But, then, the very concept of

continuation is arbitrary. Any point can qualify as an end (or as a beginning). Are the statements: "There is an end", "There is no continuation" and "There is a beginning" – equivalent? Is there a beginning where there is an end? And is there no continuation wherever there is an end? It all depends on the laws that we set. Change the law and an end-point becomes a starting point. Change it once more and a continuation is available. Legal age limits display such flexible properties.

Finiteness is also implied in a series of relationships in the physical world: containment, reduction, stoppage. But, these, of course, are, again, wrong intuitions. They are at least as wrong as the intuitive connection between boundaries and finiteness.

If something is halted (spatially or temporally) – it is not necessarily finite. An obstacle is the physical equivalent of a conceptual boundary. An infinite expansion can be checked and yet remain infinite (by expanding in other directions, for instance). If it is reduced – it is smaller than before, but not necessarily finite. If it is contained – it must be smaller than the container but, again, not necessarily finite.

It would seem, therefore, that the very notion of finiteness has to do with wrong intuitions regarding relationships between entities, real, or conceptual. Geometrical finiteness and numerical finiteness relate to our mundane, very real, experiences. This is why we find it difficult to digest mathematical entities such as a singularity (both finite and infinite, in some respects). We prefer the fiction of finiteness (temporal, spatial, logical) – over the reality of the infinite.

Millennia of logical paradoxes conditioned us to adopt

Kant's view that the infinite is beyond logic and only leads to the creation of unsolvable antinomies. Antinomies made it necessary to reject the principle of the excluded middle ("yes" or "no" and nothing in between). One of his antinomies "proved" that the world was not infinite, nor was it finite. The antinomies were disputed (Kant's answers were not the ONLY ways to tackle them). But one contribution stuck: the world is not a perfect whole. Both the sentences that the whole world is finite and that it is infinite are false, simply because there is no such thing as a completed, whole world. This is commensurate with the law that for every proposition, itself or its negation must be true. The negation of: "The world as a perfect whole is finite" is not "The world as a perfect whole is infinite". Rather, it is: "Either there is no perfectly whole world, or, if there is, it is not finite." In the "Critique of Pure Reason", Kant discovered four pairs of propositions, each comprised of a thesis and an antithesis, both compellingly plausible. The thesis of the first antinomy is that the world had a temporal beginning and is spatially bounded. The second thesis is that every substance is made up of simpler substances. The two mathematical antinomies relate to the infinite. The answer to the first is: "Since the world does not exist in itself (detached from the infinite regression), it exists unto itself neither as a finite whole nor as an infinite whole." Indeed, if we think about the world as an object, it is only logical to study its size and origins. But in doing so, we attribute to it features derived from our thinking, not affixed by any objective reality.

Kant made no serious attempt to distinguish the infinite from the infinite regression series, which led to the antinomies. Paradoxes are the offspring of problems with language. Philosophers used infinite regression to attack

both the notions of finiteness (Zeno) and of infinity. Ryle, for instance, suggested the following paradox: voluntary acts are caused by wilful acts. If the latter were voluntary, then other, preceding, wilful acts will have to be postulated to cause them and so on ad infinitum and ad nauseam. Either the definition is wrong (voluntary acts are not caused by wilful acts) or wilful acts are involuntary. Both conclusions are, naturally, unacceptable. Infinity leads to unacceptable conclusions is the not so hidden message.

Zeno used infinite series to attack the notion of finiteness and to demonstrate that finite things are made of infinite quantities of ever-smaller things. Anaxagoras said that there is no "smallest quantity" of anything. The Atomists, on the other hand, disputed this and also introduced the infinite universe (with an infinite number of worlds) into the picture. Aristotle denied infinity out of existence. The infinite doesn't actually exist, he said. Rather, it is potential. Both he and the Pythagoreans treated the infinite as imperfect, unfinished. To say that there is an infinite number of numbers is simply to say that it is always possible to conjure up additional numbers (beyond those that we have). But despite all this confusion, the transition from the Aristotelian (finite) to the Newtonian (infinite) worldview was smooth and presented no mathematical problem. The real numbers are, naturally, correlated to the points in an infinite line. By extension, trios of real numbers are easily correlated to points in an infinite three-dimensional space. The infinitely small posed more problems than the infinitely big. The Differential Calculus required the postulation of the infinitesimal, smaller than a finite quantity, yet bigger than zero. Couchy and Weierstrass tackled this problem efficiently and their work paved the way for Cantor.

Cantor is the father of the modern concept of the infinite. Through logical paradoxes, he was able to develop the magnificent edifice of Set Theory. It was all based on finite sets and on the realization that infinite sets were NOT bigger finite sets, that the two types of sets were substantially different.

Two finite sets are judged to have the same number of members only if there is an isomorphic relationship between them (in other words, only if there is a rule of "mapping", which links every member in one set with members in the other). Cantor applied this principle to infinite sets and introduced infinite cardinal numbers in order to count and number their members. It is a direct consequence of the application of this principle, that an infinite set does not grow by adding to it a finite number of members – and does not diminish by subtracting from it a finite number of members. An infinite cardinal is not influenced by any mathematical interaction with a finite cardinal.

The set of infinite cardinal numbers is, in itself, infinite. The set of all finite cardinals has a cardinal number, which is the smallest infinite cardinal (followed by bigger cardinals). Cantor's continuum hypothesis is that the smallest infinite cardinal is the number of real numbers. But it remained a hypothesis. It is impossible to prove it or to disprove it, using current axioms of set theory. Cantor also introduced infinite ordinal numbers.

Set theory was immediately recognized as an important contribution and applied to problems in geometry, logic, mathematics, computation and physics. One of the first questions to have been tackled by it was the continuum problem. What is the number of points in a continuous line? Cantor suggested that it is the second smallest

infinite cardinal number. Godel and Cohn proved that the problem is insoluble and that Cantor's hypothesis and the propositions relate to it are neither true nor false.

Cantor also proved that sets cannot be members of themselves and that there are sets which have more members that the denumerably infinite set of all the real numbers. In other words, that infinite sets are organized in a hierarchy. Russel and Whitehead concluded that mathematics was a branch of the logic of sets and that it is analytical. In other words: the language with which we analyse the world and describe it is closely related to the infinite. Indeed, if we were not blinded by the evolutionary amenities of our senses, we would have noticed that our world is infinite. Our language is composed of infinite elements. Our mathematical and geometrical conventions and units are infinite. The finite is an arbitrary imposition.

During the Medieval Ages an argument called "The Traversal of the Infinite" was used to show that the world's past must be finite. An infinite series cannot be completed (=the infinite cannot be traversed). If the world were infinite in the past, then eternity would have elapsed up to the present. Thus an infinite sequence would have been completed. Since this is impossible, the world must have a finite past. Aquinas and Ockham contradicted this argument by reminding the debaters that a traversal requires the existence of two points (termini) – a beginning and an end. Yet, every moment in the past, considered a beginning, is bound to have existed a finite time ago and, therefore, only a finite time has been hitherto traversed. In other words, they demonstrated that our very language incorporates finiteness and that it is impossible to discuss the infinite using spatial-temporal

terms specifically constructed to lead to finiteness.

"The Traversal of the Infinite" demonstrates the most serious problem of dealing with the infinite: that our language, our daily experience (=traversal) – all, to our minds, are "finite". We are told that we had a beginning (which depends on the definition of "we". The atoms comprising us are much older, of course). We are assured that we will have an end (an assurance not substantiated by any evidence). We have starting and ending points (arbitrarily determined by us). We count, then we stop (our decision, imposed on an infinite world). We put one thing inside another (and the container is contained by the atmosphere, which is contained by Earth which is contained by the Galaxy and so on, ad infinitum). In all these cases, we arbitrarily define both the parameters of the system and the rules of inclusion or exclusion. Yet, we fail to see that WE are the source of the finiteness around us. The evolutionary pressures to survive produced in us this blessed blindness. No decision can be based on an infinite amount of data. No commerce can take place where numbers are always infinite. We had to limit our view and our world drastically, only so that we will be able to expand it later, gradually and with limited, finite, risk.

Innovation

There is an often missed distinction between Being the First, Being Original, and Being Innovative.

To determine that someone (or something) has been the first, we need to apply a temporal test. It should answer at least three questions: what exactly was done, when exactly was it done and was this ever done before.

To determine whether someone (or something) is original

– a test of substance has to be applied. It should answer at least the following questions: what exactly was done, when exactly was it done and was this ever done before.

To determine if someone (or something) is innovative, a practical test has to be applied. It should answer at least the following questions: what exactly was done, in which way was it done and was exactly this ever done before in exactly the same way.

Reviewing the tests above leads us to two conclusions:

1. Being first and being original are more closely linked than being first and being innovative or than being original and being innovative. The tests applied to determine "firstness" and originality are the same.

2. Though the tests are the same, the emphasis is not. To determine whether someone or something is a first, we primarily ask "when" - while to determine originality we primarily ask "what".

Innovation helps in the conservation of resources and, therefore, in the delicate act of human survival. Being first demonstrates feasibility ("it is possible"). By being original, what is needed or can be done is expounded upon. And by being innovative, the practical aspect is revealed: how should it be done.

Society rewards these pathfinders with status and lavishes other tangible and intangible benefits upon them - mainly upon the Originators and the Innovators. The Firsts are often ignored because they do not directly open a new path – they merely demonstrate that such a path is there. The Originators and the Innovators are the ones who discover, expose, invent, put together, or verbalize

something in a way which enables others to repeat the feat (really to reconstruct the process) with a lesser investment of effort and resources.

It is possible to be First and not be Original. This is because Being First is context dependent. For instance: had I traveled to a tribe in the Amazon forests and quoted a speech of Kennedy to them – I would hardly have been original but I would definitely have been the first to have done so in that context (of that particular tribe at that particular time). Popularizers of modern science and religious missionaries are all first at doing their thing - but they are not original. It is their audience which determines their First-ness – and history which proves their (lack of) originality.

Many of us reinvent the wheel. It is humanly impossible to be aware of all that was written and done by others before us. Unaware of the fact that we are not the first, neither original or innovative - we file patent applications, make "discoveries" in science, exploit (not so) "new" themes in the arts.

Society may judge us differently than we perceive ourselves to be - less original and innovative. Hence, perhaps, is the syndrome of the "misunderstood genius". Admittedly, things are easier for those of us who use words as their raw material: there are so many permutations, that the likelihood of not being first or innovative with words is minuscule. Hence the copyright laws.

Yet, since originality is measured by the substance of the created (idea) content, the chances of being original as well as first are slim. At most, we end up restating or re-phrasing old ideas. The situation is worse (and the tests

more rigorous) when it comes to non-verbal fields of human endeavor, as any applicant for a patent can attest.

But then surely this is too severe! Don't we all stand on the shoulders of giants? Can one be original, first, even innovative without assimilating the experience of past generations? Can innovation occur in vacuum, discontinuously and disruptively? Isn't intellectual continuity a prerequisite?

True, a scientist innovates, explores, and discovers on the basis of (a limited and somewhat random) selection of previous explorations and research. He even uses equipment – to measure and perform other functions – that was invented by his predecessors. But progress and advance are conceivable without access to the treasure troves of the past. True again, the very concept of progress entails comparison with the past. But language, in this case, defies reality. Some innovation comes "out of the blue" with no "predecessors".

Scientific revolutions are not smooth evolutionary processes (even biological evolution is no longer considered a smooth affair). They are phase transitions, paradigmatic changes, jumps, fits and starts rather than orderly unfolding syllogisms (Kuhn: "The Structure of Scientific Revolutions").

There is very little continuity in quantum mechanics (or even in the Relativity Theories). There is even less in modern genetics and immunology. The notion of laboriously using building blocks to construct an ebony tower of science is not supported by the history of human knowledge. And what about the first human being who had a thought or invented a device – on what did he base himself and whose work did he continue?

Innovation is the father of new context. Original thoughts shape the human community and the firsts among us dictate the rules of the game. There is very little continuity in the discontinuous processes called invention and revolution. But our reactions to new things and adaptation to the new world in their wake essentially remain the same. It is there that continuity is to be found.

On 18 June business people across the UK took part in Living Innovation 2002. The extravaganza included a national broadcast linkup from the Eden Project in Cornwall and satellite-televised interviews with successful innovators.

Innovation occurs even in the most backward societies and in the hardest of times. It is thus, too often, taken for granted. But the intensity, extent, and practicality of innovation can be fine-tuned. Appropriate policies, the right environment, incentives, functional and risk seeking capital markets, or a skillful and committed Diaspora - can all enhance and channel innovation.

The wrong cultural context, discouraging social mores, xenophobia, a paranoid set of mind, isolation from international trade and FDI, lack of fiscal incentives, a small domestic or regional market, a conservative ethos, risk aversion, or a well-ingrained fear of disgracing failure - all tend to stifle innovation.

Product Development Units in banks, insurers, brokerage houses, and other financial intermediaries churn out groundbreaking financial instruments regularly. Governments - from the United Kingdom to New Zealand - set up "innovation teams or units" to foster innovation and support it. Canada's is more than two decades old.

The European Commission has floated a new program dubbed INNOVATION and aimed at the promotion of innovation and encouragement of SME participation. Its goals are:

- "(The) promotion of an environment favourable to innovation and the absorption of new technologies by enterprises;
- Stimulation of a European open area for the diffusion of technologies and knowledge;
- Supply of this area with appropriate technologies."

But all these worthy efforts ignore what James O'Toole called in "Leading Change" - "the ideology of comfort and the tyranny of custom." The much quoted Austrian economist, Joseph Schumpeter coined the phrase "creative destruction". Together with its twin - "disruptive technologies" - it came to be the mantra of the now defunct "New Economy".

Schumpeter seemed to have captured the unsettling nature of innovation - unpredictable, unknown, unruly, troublesome, and ominous. Innovation often changes the inner dynamics of organizations and their internal power structure. It poses new demands on scarce resources. It provokes resistance and unrest. If mismanaged - it can spell doom rather than boom.

Satkar Gidda, Sales and Marketing Director for SiebertHead, a large UK packaging design house, was quoted in "The Financial Times" last week as saying:

"Every new product or pack concept is researched to death nowadays - and many great ideas are thrown out simply because a group of consumers is suspicious of

anything that sounds new ... Conservatism among the buying public, twinned with a generation of marketing directors who won't take a chance on something that breaks new ground, is leading to super-markets and car showrooms full of me-too products, line extensions and minor product tweaks."

Yet, the truth is that no one knows why people innovate. The process of innovation has never been studied thoroughly - nor are the effects of innovation fully understood.

In a new tome titled "The Free-Market Innovation Machine", William Baumol of Princeton University claims that only capitalism guarantees growth through a steady flow of innovation:

"... Innovative activity-which in other types of economy is fortuitous and optional-becomes mandatory, a life-and-death matter for the firm."

Capitalism makes sure that innovators are rewarded for their time and skills. Property rights are enshrined in enforceable contracts. In non-capitalist societies, people are busy inventing ways to survive or circumvent the system, create monopolies, or engage in crime.

But Baumol fails to sufficiently account for the different levels of innovation in capitalistic countries. Why are inventors in America more productive than their French or British counterparts - at least judging by the number of patents they get issued?

Perhaps because oligopolies are more common in the US than they are elsewhere. Baumol suggests that oligopolies use their excess rent - i.e., profits which exceed perfect competition takings - to innovate and thus to differentiate

their products. Still, oligopolistic behavior does not sit well with another of Baumol's observations: that innovators tend to maximize their returns by sharing their technology and licensing it to more efficient and profitable manufacturers. Nor can one square this propensity to share with the ever more stringent and expansive intellectual property laws that afflict many rich countries nowadays.

Very few inventions have forced "established companies from their dominant market positions" as the "The Economist" put it recently. Moreover, most novelties are spawned by established companies. The single, tortured, and misunderstood inventor working on a shoestring budget in his garage - is a mythical relic of 18th century Romanticism.

More often, innovation is systematically and methodically pursued by teams of scientists and researchers in the labs of mega-corporations and endowed academic institutions. Governments - and, more particularly the defense establishment - finance most of this brainstorming. the Internet was invented by DARPA - a Department of Defense agency - and not by libertarian intellectuals.

A recent report compiled by PricewaterhouseCoopers from interviews with 800 CEO's in the UK, France, Germany, Spain, Australia, Japan and the US and titled "Innovation and Growth: A Global Perspective" included the following findings:

"High-performing companies - those that generate annual total shareholder returns in excess of 37 percent and have seen consistent revenue growth over the last five years - average 61 percent of their turnover from new products and services. For low performers, only 26 percent of

turnover comes from new products and services."

Most of the respondents attributed the need to innovate to increasing pressures to brand and differentiate exerted by the advent of e-business and globalization. Yet a full three quarters admitted to being entirely unprepared for the new challenges.

Two good places to study routine innovation are the design studio and the financial markets.

Tom Kelly, brother of founder David Kelly, studies, in "The Art of Innovation", the history of some of the greater inventions to have been incubated in IDEO, a prominent California-based design firm dubbed "Innovation U." by Fortune Magazine. These include the computer mouse, the instant camera, and the PDA. The secret of success seems to consist of keenly observing what people miss most when they work and play.

Robert Morris, an Amazon reviewer, sums up IDEO's creative process:

- Understand the market, the client, the technology, and the perceived constraints on the given problem;
- Observe real people in real-life situations;
- Literally visualize new-to-the- world concepts AND the customers who will use them;
- Evaluate and refine the prototypes in a series of quick iterations;
- And finally, implement the new concept for commercialization.

This methodology is a hybrid between the lone-inventor and the faceless corporate R&D team. An entirely different process of innovation characterizes the financial markets. Jacob Goldenberg and David Mazursky postulated the existence of Creativity Templates. Once systematically applied to existing products, these lead to innovation.

Financial innovation is methodical and product-centric. The resulting trade in pioneering products, such as all manner of derivatives, has expanded 20-fold between 1986 and 1999, when annual trading volume exceeded 13 trillion dollar.

Swiss Re Economic Research and Consulting had this to say in its study, Sigma 3/2001:

"Three types of factors drive financial innovation: demand, supply, and taxes and regulation. Demand driven innovation occurs in response to the desire of companies to protect themselves from market risks ... Supply side factors ... include improvements in technology and heightened competition among financial service firms. Other financial innovation occurs as a rational response to taxes and regulation, as firms seek to minimize the cost that these impose."

Financial innovation is closely related to breakthroughs in information technology. Both markets are founded on the manipulation of symbols and coded concepts. The dynamic of these markets is self-reinforcing. Faster computers with more massive storage, speedier data transfer ("pipeline"), and networking capabilities - give rise to all forms of advances - from math-rich derivatives contracts to distributed computing. These, in turn, drive software companies, creators of content, financial

engineers, scientists, and inventors to a heightened complexity of thinking. It is a virtuous cycle in which innovation generates the very tools that facilitate further innovation.

The eminent American economist Robert Merton - quoted in Sigma 3/2001 - described in the Winter 1992 issue of the "Journal of Applied Corporate Finance" the various phases of the market-buttressed spiral of financial innovation thus:

1. "In the first stage ... there is a proliferation of standardised securities such as futures. These securities make possible the creation of custom-designed financial products ...

2. In the second stage, volume in the new market expands as financial intermediaries trade to hedge their market exposures.

3. The increased trading volume in turn reduces financial transaction costs and thereby makes further implementation of new products and trading strategies possible, which leads to still more volume.

4. The success of these trading markets then encourages investments in creating additional markets, and the financial system spirals towards the theoretical limit of zero transaction costs and dynamically complete markets."

Financial innovation is not adjuvant. Innovation is useless without finance - whether in the form of equity or debt. Schumpeter himself gave equal weight to new forms of "credit creation" which invariably accompanied each technological "paradigm shift". In the absence of stock

options and venture capital - there would have been no Microsoft or Intel.

It would seem that both management gurus and ivory tower academics agree that innovation - technological and financial - is an inseparable part of competition. Tom Peters put it succinctly in "The Circle of Innovation" when he wrote: "Innovate or die". James Morse, a management consultant, rendered, in the same tome, the same lesson more verbosely: "The only sustainable competitive advantage comes from out-innovating the competition."

The OECD has just published a study titled "Productivity and Innovation". It summarizes the orthodoxy, first formulated by Nobel prizewinner Robert Solow from MIT almost five decades ago:

"A substantial part of economic growth cannot be explained by increased utilisation of capital and labour. This part of growth, commonly labelled 'multi-factor productivity', represents improvements in the efficiency of production. It is usually seen as the result of innovation by best-practice firms, technological catch-up by other firms, and reallocation of resources across firms and industries."

The study analyzed the entire OECD area. It concluded, unsurprisingly, that easing regulatory restrictions enhances productivity and that policies that favor competition spur innovation. They do so by making it easier to adjust the factors of production and by facilitating the entrance of new firms - mainly in rapidly evolving industries.

Pro-competition policies stimulate increases in efficiency

and product diversification. They help shift output to innovative industries. More unconventionally, as the report diplomatically put it: "The effects on innovation of easing job protection are complex" and "Excessive intellectual property rights protection may hinder the development of new processes and products."

As expected, the study found that productivity performance varies across countries reflecting their ability to reach and then shift the technological frontier - a direct outcome of aggregate innovative effort.

Yet, innovation may be curbed by even more all-pervasive and pernicious problems. "The Economist" posed a question to its readers in the December 2001'issue of its Technology Quarterly:

Was "technology losing its knack of being able to invent a host of solutions for any given problem ... (and) as a corollary, (was) innovation ... running out of new ideas to exploit."

These worrying trends were attributed to "the soaring cost of developing high-tech products ... as only one of the reasons why technological choice is on the wane, as one or two firms emerge as the sole suppliers. The trend towards globalisation-of markets as much as manufacturing-was seen as another cause of this loss of engineering diversity ... (as was the) the widespread use of safety standards that emphasise detailed design specifications instead of setting minimum performance requirements for designers to achieve any way they wish.

Then there was the commoditisation of technology brought on largely by the cross-licensing and patent-trading between rival firms, which more or less guarantees

that many of their products are essentially the same ... (Another innovation-inhibiting problem is that) increasing knowledge was leading to increasing specialisation - with little or no cross- communication between experts in different fields ...

... Maturing technology can quickly become de-skilled as automated tools get developed so designers can harness the technology's power without having to understand its inner workings. The more that happens, the more engineers closest to the technology become incapable of contributing improvements to it. And without such user input, a technology can quickly ossify."

The readers overwhelmingly rejected these contentions. The rate of innovation, they asserted, has actually accelerated with wider spread education and more efficient weeding-out of unfit solutions by the marketplace. "... Technology in the 21st century is going to be less about discovering new phenomena and more about putting known things together with greater imagination and efficiency."

Many cited the S-curve to illuminate the current respite. Innovation is followed by selection, improvement of the surviving models, shake-out among competing suppliers, and convergence on a single solution. Information technology has matured - but new S-curves are nascent: nanotechnology, quantum computing, proteomics, neuro-silicates, and machine intelligence.

Recent innovations have spawned two crucial ethical debates, though with accentuated pragmatic aspects. The first is "open source-free access" versus proprietary technology and the second revolves around the role of technological progress in re-defining relationships

between stakeholders.

Both issues are related to the inadvertent re-engineering of the corporation. Modern technology helped streamline firms by removing layers of paper-shuffling management. It placed great power in the hands of the end-user, be it an executive, a household, or an individual. It reversed the trends of centralization and hierarchical stratification wrought by the Industrial Revolution. From microprocessor to micropower - an enormous centrifugal shift is underway. Power percolates back to the people.

Thus, the relationships between user and supplier, customer and company, shareholder and manager, medium and consumer - are being radically reshaped. In an intriguing spin on this theme, Michael Cox and Richard Alm argue in their book "Myths of Rich and Poor - Why We are Better off than We Think" that income inequality actually engenders innovation. The rich and corporate clients pay exorbitant prices for prototypes and new products, thus cross-subsidising development costs for the poorer majority.

Yet the poor are malcontented. They want equal access to new products. One way of securing it is by having the poor develop the products and then disseminate them free of charge. The development effort is done collectively, by volunteers. The Linux operating system is an example as is the Open Directory Project which competes with the commercial Yahoo!

The UNDP's Human Development Report 2001 titled "Making new technologies work for human development" is unequivocal. Innovation and access to technologies are the keys to poverty-reduction through sustained growth. Technology helps reduce mortality rates, disease, and

hunger among the destitute.

"The Economist" carried last December the story of the agricultural technologist Richard Jefferson who helps "local
plant breeders and growers develop the foods they think best ... CAMBIA (the institute he founded) has resisted the lure of exclusive licences and shareholder investment, because it wants its work to be freely available and widely used". This may well foretell the shape of things to come.

Insanity Defense

"You can know the name of a bird in all the languages of the world, but when you're finished, you'll know absolutely nothing whatever about the bird… So let's look at the bird and see what it's doing – that's what counts. I learned very early the difference between knowing the name of something and knowing something."

Richard Feynman, Physicist and 1965 Nobel Prize laureate (1918-1988)

"You have all I dare say heard of the animal spirits and how they are transfused from father to son etcetera etcetera – well you may take my word that nine parts in ten of a man's sense or his nonsense, his successes and miscarriages in this world depend on their motions and activities, and the different tracks and trains you put them into, so that when they are once set a-going, whether right or wrong, away they go cluttering like hey-go-mad."

Lawrence Sterne (1713-1758), "The Life and Opinions of Tristram Shandy, Gentleman" (1759)

I. The Insanity Defense

"It is an ill thing to knock against a deaf-mute, an imbecile, or a minor. He that wounds them is culpable, but if they wound him they are not culpable." (Mishna, Babylonian Talmud)

If mental illness is culture-dependent and mostly serves as an organizing social principle - what should we make of the insanity defense (NGRI- Not Guilty by Reason of Insanity)?

A person is held not responsible for his criminal actions if s/he cannot tell right from wrong ("lacks substantial capacity either to appreciate the criminality (wrongfulness) of his conduct" - diminished capacity), did not intend to act the way he did (absent "mens rea") and/or could not control his behavior ("irresistible impulse"). These handicaps are often associated with "mental disease or defect" or "mental retardation".

Mental health professionals prefer to talk about an impairment of a "person's perception or understanding of reality". They hold a "guilty but mentally ill" verdict to be contradiction in terms. All "mentally-ill" people operate within a (usually coherent) worldview, with consistent internal logic, and rules of right and wrong (ethics). Yet, these rarely conform to the way most people perceive the world. The mentally-ill, therefore, cannot be guilty because s/he has a tenuous grasp on reality.

Yet, experience teaches us that a criminal maybe mentally ill even as s/he maintains a perfect reality test and thus is held criminally responsible (Jeffrey Dahmer comes to mind). The "perception and understanding of reality", in other words, can and does co-exist even with the severest

forms of mental illness.

This makes it even more difficult to comprehend what is meant by "mental disease". If some mentally ill maintain a grasp on reality, know right from wrong, can anticipate the outcomes of their actions, are not subject to irresistible impulses (the official position of the American Psychiatric Association) - in what way do they differ from us, "normal" folks?

This is why the insanity defense often sits ill with mental health pathologies deemed socially "acceptable" and "normal" - such as religion or love.

Consider the following case:

A mother bashes the skulls of her three sons. Two of them die. She claims to have acted on instructions she had received from God. She is found not guilty by reason of insanity. The jury determined that she "did not know right from wrong during the killings."

But why exactly was she judged insane?

Her belief in the existence of God - a being with inordinate and inhuman attributes - may be irrational.

But it does not constitute insanity in the strictest sense because it conforms to social and cultural creeds and codes of conduct in her milieu. Billions of people faithfully subscribe to the same ideas, adhere to the same transcendental rules, observe the same mystical rituals, and claim to go through the same experiences. This shared psychosis is so widespread that it can no longer be deemed pathological, statistically speaking.

She claimed that God has spoken to her.

As do numerous other people. Behavior that is considered psychotic (paranoid-schizophrenic) in other contexts is lauded and admired in religious circles. Hearing voices and seeing visions - auditory and visual delusions - are considered rank manifestations of righteousness and sanctity.

Perhaps it was the content of her hallucinations that proved her insane?

She claimed that God had instructed her to kill her boys. Surely, God would not ordain such evil?

Alas, the Old and New Testaments both contain examples of God's appetite for human sacrifice. Abraham was ordered by God to sacrifice Isaac, his beloved son (though this savage command was rescinded at the last moment). Jesus, the son of God himself, was crucified to atone for the sins of humanity.

A divine injunction to slay one's offspring would sit well with the Holy Scriptures and the Apocrypha as well as with millennia-old Judeo-Christian traditions of martyrdom and sacrifice.

Her actions were wrong and incommensurate with both human and divine (or natural) laws.

Yes, but they were perfectly in accord with a literal interpretation of certain divinely-inspired texts, millennial scriptures, apocalyptic thought systems, and fundamentalist religious ideologies (such as the ones espousing the imminence of "rapture"). Unless one declares these doctrines and writings insane, her actions are not.

we are forced to the conclusion that the murderous mother

is perfectly sane. Her frame of reference is different to ours. Hence, her definitions of right and wrong are idiosyncratic. To her, killing her babies was the right thing to do and in conformity with valued teachings and her own epiphany. Her grasp of reality - the immediate and later consequences of her actions - was never impaired.

It would seem that sanity and insanity are relative terms, dependent on frames of cultural and social reference, and statistically defined. There isn't - and, in principle, can never emerge - an "objective", medical, scientific test to determine mental health or disease unequivocally.

II. The Concept of Mental Disease - An Overview

Someone is considered mentally "ill" if:

1. His conduct rigidly and consistently deviates from the typical, average behaviour of all other people in his culture and society that fit his profile (whether this conventional behaviour is moral or rational is immaterial), or

2. His judgment and grasp of objective, physical reality is impaired, and

3. His conduct is not a matter of choice but is innate and irresistible, and

4. His behavior causes him or others discomfort, and is

5. Dysfunctional, self-defeating, and self-destructive even by his own yardsticks.

Descriptive criteria aside, what is the ***essence*** of mental disorders? Are they merely physiological disorders of the

brain, or, more precisely of its chemistry? If so, can they be cured by restoring the balance of substances and secretions in that mysterious organ? And, once equilibrium is reinstated – is the illness "gone" or is it still lurking there, "under wraps", waiting to erupt? Are psychiatric problems inherited, rooted in faulty genes (though amplified by environmental factors) – or brought on by abusive or wrong nurturance?

These questions are the domain of the "medical" school of mental health.

Others cling to the spiritual view of the human psyche. They believe that mental ailments amount to the metaphysical discomposure of an unknown medium – the soul. Theirs is a holistic approach, taking in the patient in his or her entirety, as well as his milieu.

The members of the functional school regard mental health disorders as perturbations in the proper, statistically "normal", behaviours and manifestations of "healthy" individuals, or as dysfunctions. The "sick" individual – ill at ease with himself (ego-dystonic) or making others unhappy (deviant) – is "mended" when rendered functional again by the prevailing standards of his social and cultural frame of reference.

In a way, the three schools are akin to the trio of blind men who render disparate descriptions of the very same elephant. Still, they share not only their subject matter – but, to a counter intuitively large degree, a faulty methodology.

As the renowned anti-psychiatrist, Thomas Szasz, of the State University of New York, notes in his article ***"The Lying Truths of Psychiatry"***, mental health scholars,

regardless of academic predilection, infer the etiology of mental disorders from the success or failure of treatment modalities.

This form of "reverse engineering" of scientific models is not unknown in other fields of science, nor is it unacceptable if the experiments meet the criteria of the scientific method. The theory must be all-inclusive (anamnetic), consistent, falsifiable, logically compatible, monovalent, and parsimonious. Psychological "theories" – even the "medical" ones (the role of serotonin and dopamine in mood disorders, for instance) – are usually none of these things.

The outcome is a bewildering array of ever-shifting mental health "diagnoses" expressly centred around Western civilisation and its standards (example: the ethical objection to suicide). Neurosis, a historically fundamental "condition" vanished after 1980. Homosexuality, according to the American Psychiatric Association, was a pathology prior to 1973. Seven years later, narcissism was declared a "personality disorder", almost seven decades after it was first described by Freud.

III. Personality Disorders

Indeed, personality disorders are an excellent example of the kaleidoscopic landscape of "objective" psychiatry. The classification of Axis II personality disorders – deeply ingrained, maladaptive, lifelong behavior patterns – in the Diagnostic and Statistical Manual, fourth edition, text revision [American Psychiatric Association. DSM-IV-TR, Washington, 2000] – or the DSM-IV-TR for short – has come under sustained and serious criticism from its inception in 1952, in the first edition of the DSM.

The DSM IV-TR adopts a categorical approach,

postulating that personality disorders are ***"qualitatively distinct clinical syndromes"*** (p. 689). This is widely doubted. Even the distinction made between "normal" and "disordered" personalities is increasingly being rejected. The "diagnostic thresholds" between normal and abnormal are either absent or weakly supported.

The polythetic form of the DSM's Diagnostic Criteria – only a subset of the criteria is adequate grounds for a diagnosis – generates unacceptable diagnostic heterogeneity. In other words, people diagnosed with the same personality disorder may share only one criterion or none.

The DSM fails to clarify the exact relationship between Axis II and Axis I disorders and the way chronic childhood and developmental problems interact with personality disorders.

The differential diagnoses are vague and the personality disorders are insufficiently demarcated. The result is excessive co-morbidity (multiple Axis II diagnoses).

The DSM contains little discussion of what distinguishes normal character (personality), personality traits, or personality style (Millon) – from personality disorders.

A dearth of documented clinical experience regarding both the disorders themselves and the utility of various treatment modalities.

Numerous personality disorders are "not otherwise specified" – a catchall, basket "category".
Cultural bias is evident in certain disorders (such as the

Antisocial and the Schizotypal).

The emergence of dimensional alternatives to the categorical approach is acknowledged in the DSM-IV-TR itself:

"An alternative to the categorical approach is the dimensional perspective that Personality Disorders represent maladaptive variants of personality traits that merge imperceptibly into normality and into one another" (p.689)

The following issues – long neglected in the DSM – are likely to be tackled in future editions as well as in current research. But their omission from official discourse hitherto is both startling and telling:

- The longitudinal course of the disorder(s) and their temporal stability from early childhood onwards;
- The genetic and biological underpinnings of personality disorder(s);
- The development of personality psychopathology during childhood and its emergence in adolescence;
- The interactions between physical health and disease and personality disorders;
- The effectiveness of various treatments – talk therapies as well as psychopharmacology.

IV. The Biochemistry and Genetics of Mental Health

Certain mental health afflictions are either correlated with a statistically abnormal biochemical activity in the brain – or are ameliorated with medication. Yet the two ***facts*** are not ineludibly facets of ***the same*** underlying phenomenon. In other words, that a given medicine reduces or abolishes

certain symptoms does not necessarily mean they were ***caused*** by the processes or substances affected by the drug administered. Causation is only one of many possible connections and chains of events.

To designate a pattern of behaviour as a mental health disorder is a value judgment, or at best a statistical observation. Such designation is effected regardless of the facts of brain science. Moreover, correlation is not causation. Deviant brain or body biochemistry (once called "polluted animal spirits") do exist – but are they truly the roots of mental perversion? Nor is it clear which triggers what: do the aberrant neurochemistry or biochemistry cause mental illness – or the other way around?

That psychoactive medication alters behaviour and mood is indisputable. So do illicit and legal drugs, certain foods, and all interpersonal interactions. That the changes brought about by prescription are desirable – is debatable and involves tautological thinking. If a certain pattern of behaviour is described as (socially) "dysfunctional" or (psychologically) "sick" – clearly, every change would be welcomed as "healing" and every agent of transformation would be called a "cure".

The same applies to the alleged heredity of mental illness. Single genes or gene complexes are frequently "associated" with mental health diagnoses, personality traits, or behaviour patterns. But too little is known to establish irrefutable sequences of causes-and-effects. Even less is proven about the interaction of nature and nurture, genotype and phenotype, the plasticity of the brain and the psychological impact of trauma, abuse, upbringing, role models, peers, and other environmental elements.

Nor is the distinction between psychotropic substances and talk therapy that clear-cut. Words and the interaction with the therapist also affect the brain, its processes and chemistry - albeit more slowly and, perhaps, more profoundly and irreversibly. Medicines – as David Kaiser reminds us in ***"Against Biologic Psychiatry"*** (Psychiatric Times, Volume XIII, Issue 12, December 1996) – treat symptoms, not the underlying processes that yield them.

V. The Variance of Mental Disease

If mental illnesses are bodily and empirical, they should be invariant both temporally and spatially, across cultures and societies. This, to some degree, is, indeed, the case. Psychological diseases are not context dependent – but the pathologizing of certain behaviours is. Suicide, substance abuse, narcissism, eating disorders, antisocial ways, schizotypal symptoms, depression, even psychosis are considered sick by some cultures – and utterly normative or advantageous in others.

This was to be expected. The human mind and its dysfunctions are alike around the world. But values differ from time to time and from one place to another. Hence, disagreements about the propriety and desirability of human actions and inaction are bound to arise in a symptom-based diagnostic system.

As long as the ***pseudo-medical*** definitions of mental health disorders continue to rely exclusively on signs and symptoms – i.e., mostly on observed or reported behaviours – they remain vulnerable to such discord and devoid of much-sought universality and rigor.

VI. Mental Disorders and the Social Order

The mentally sick receive the same treatment as carriers

of AIDS or SARS or the Ebola virus or smallpox. They are sometimes quarantined against their will and coerced into involuntary treatment by medication, psychosurgery, or electroconvulsive therapy. This is done in the name of the greater good, largely as a preventive policy.

Conspiracy theories notwithstanding, it is impossible to ignore the enormous interests vested in psychiatry and psychopharmacology. The multibillion dollar industries involving drug companies, hospitals, managed healthcare, private clinics, academic departments, and law enforcement agencies rely, for their continued and exponential growth, on the propagation of the concept of "mental illness" and its corollaries: treatment and research.

VII. Mental Ailment as a Useful Metaphor

Abstract concepts form the core of all branches of human knowledge. No one has ever seen a quark, or untangled a chemical bond, or surfed an electromagnetic wave, or visited the unconscious. These are useful metaphors, theoretical entities with explanatory or descriptive power.

"Mental health disorders" are no different. They are shorthand for capturing the unsettling quiddity of "the Other". Useful as taxonomies, they are also tools of social coercion and conformity, as Michel Foucault and Louis Althusser observed. Relegating both the dangerous and the idiosyncratic to the collective fringes is a vital technique of social engineering.

The aim is progress through social cohesion and the regulation of innovation and creative destruction. Psychiatry, therefore, is reifies society's preference of evolution to revolution, or, worse still, to mayhem. As is

often the case with human endeavour, it is a noble cause, unscrupulously and dogmatically pursued.

Intellectual Property (Film Review – "Being John Malkovich")

A quintessential loser, an out-of-job puppeteer, is hired by a firm, whose offices are ensconced in a half floor (literally. The ceiling is about a metre high, reminiscent of Taniel's hallucinatory Alice in Wonderland illustrations). By sheer accident, he discovers a tunnel (a "portal", in Internet-age parlance), which sucks its visitors into the mind of the celebrated actor, John Malkovich. The movie is a tongue in cheek discourse of identity, gender and passion in an age of languid promiscuity. It poses all the right metaphysical riddles and presses the viewers' intellectual stimulation buttons.

A two line bit of dialogue, though, forms the axis of this nightmarishly chimerical film. John Malkovich (played by himself), enraged and bewildered by the unabashed commercial exploitation of the serendipitous portal to his mind, insists that Craig, the aforementioned puppet master, cease and desist with his activities. "It is MY brain" - he screams and, with a typical American finale, "I will see you in court". Craig responds: "But, it was I who discovered the portal. It is my livelihood".

This apparently innocuous exchange disguises a few very unsettling ethical dilemmas.

The basic question is "whose brain is it, anyway"? Does John Malkovich OWN his brain? Is one's brain - one's PROPERTY? Property is usually acquired somehow. Is our brain "acquired"? It is clear that we do not acquire the hardware (neurones) and software (electrical and chemical pathways) we are born with. But it is equally clear that we

do "acquire" both brain mass and the contents of our brains (its wiring or irreversible chemical changes) through learning and experience. Does this process of acquisition endow us with property rights?

It would seem that property rights pertaining to human bodies are fairly restricted. We have no right to sell our kidneys, for instance. Or to destroy our body through the use of drugs. Or to commit an abortion at will. Yet, the law does recognize and strives to enforce copyrights, patents and other forms of intellectual property rights.

This dichotomy is curious. For what is intellectual property but a mere record of the brain's activities? A book, a painting, an invention are the documentation and representation of brain waves. They are mere shadows, symbols of the real presence - our mind. How can we reconcile this contradiction? We are deemed by the law to be capable of holding full and unmitigated rights to the PRODUCTS of our brain activity, to the recording and documentation of our brain waves. But we hold only partial rights to the brain itself, their originator.

This can be somewhat understood if we were to consider this article, for instance. It is composed on a word processor. I do not own full rights to the word processing software (merely a licence), nor is the laptop I use my property - but I posses and can exercise and enforce full rights regarding this article. Admittedly, it is a partial parallel, at best: the computer and word processing software are passive elements. It is my brain that does the authoring. And so, the mystery remains: how can I own the article - but not my brain? Why do I have the right to ruin the article at will - but not to annihilate my brain at whim?

Another angle of philosophical attack is to say that we rarely hold rights to nature or to life. We can copyright a photograph we take of a forest - but not the forest. To reduce it to the absurd: we can own a sunset captured on film - but never the phenomenon thus documented. The brain is natural and life's pivot - could this be why we cannot fully own it?

Wrong premises inevitably lead to wrong conclusions. We often own natural objects and manifestations, including those related to human life directly. We even issue patents for sequences of human DNA. And people do own forests and rivers and the specific views of sunsets.

Some scholars raise the issues of exclusivity and scarcity as the precursors of property rights. My brain can be accessed only by myself and its is one of a kind (sui generis). True but not relevant. One cannot rigorously derive from these properties of our brain a right to deny others access to them (should this become technologically feasible) - or even to set a price on such granted access. In other words, exclusivity and scarcity do not constitute property rights or even lead to their establishment. Other rights may be at play (the right to privacy, for instance) - but not the right to own property and to derive economic benefits from such ownership.

On the contrary, it is surprisingly easy to think of numerous exceptions to a purported natural right of single access to one's brain. If one memorized the formula to cure AIDS or cancer and refused to divulge it for a reasonable compensation - surely, we should feel entitled to invade his brain and extract it? Once such technology is available - shouldn't authorized bodies of inspection have access to the brains of our leaders on a periodic basis? And shouldn't we all gain visitation rights to the minds of

great men and women of science, art and culture - as we do today gain access to their homes and to the products of their brains?

There is one hidden assumption, though, in both the movie and this article. It is that mind and brain are one. The portal leads to John Malkovich's MIND - yet, he keeps talking about his BRAIN and writhing physically on the screen. The portal is useless without JM's mind. Indeed, one can wonder whether JM's mind is not an INTEGRAL part of the portal - structurally and functionally inseparable from it. If so, does not the discoverer of the portal hold equal rights to John Malkovich's mind, an integral part thereof?

The portal leads to JM's mind. Can we prove that it leads to his brain? Is this identity automatic? Of course not. It is the old psychophysical question, at the heart of dualism - still far from resolved. Can a MIND be copyrighted or patented? If no one knows WHAT is the mind - how can it be the subject of laws and rights? If JM is bothered by the portal voyagers, the intruders - he surely has legal recourse, but not through the application of the rights to own property and to benefit from it. These rights provide him with no remedy because their subject (the mind) is a mystery. Can JM sue Craig and his clientele for unauthorized visits to his mind (trespassing) - IF he is unaware of their comings and goings and unperturbed by them? Moreover, can he prove that the portal leads to HIS mind, that it is HIS mind that is being visited? Is there a way to PROVE that one has visited another's mind? (See: "On Empathy").

And if property rights to one's brain and mind were firmly established - how will telepathy (if ever proven) be treated legally? Or mind reading? The recording of dreams? Will

a distinction be made between a mere visit - and the exercise of influence on the host and his / her manipulation (similar questions arise in time travel)?

This, precisely, is where the film crosses the line between the intriguing and the macabre. The master puppeteer, unable to resist his urges, manipulates John Malkovich and finally possesses him completely. This is so clearly wrong, so manifestly forbidden, so patently immoral, that the film loses its urgent ambivalence, its surrealistic moral landscape and deteriorates into another banal comedy of situations.

Internet, Metaphors of

Four metaphors come to mind when we consider the Internet "philosophically":

1. A Genetic Blueprint

2. A Chaotic Library

3. A Collective Nervous System

4. An Unknown Continent (Terra Internetica)

I. The Genetic Blueprint

A decade after the invention of the World Wide Web, Tim Berners-Lee is promoting the "Semantic Web". The Internet hitherto is a repository of digital content. It has a rudimentary inventory system and very crude data location services. As a sad result, most of the content is invisible and inaccessible. Moreover, the Internet manipulates strings of symbols, not logical or semantic propositions. In other words, the Net compares values but

does not know the meaning of the values it thus manipulates. It is unable to interpret strings, to infer new facts, to deduce, induce, derive, or otherwise comprehend what it is doing. In short, it does not understand language. Run an ambiguous term by any search engine and these shortcomings become painfully evident. This lack of understanding of the semantic foundations of its raw material (data, information) prevent applications and databases from sharing resources and feeding each other. The Internet is discrete, not continuous. It resembles an archipelago, with users hopping from island to island in a frantic search for relevancy.

Even visionaries like Berners-Lee do not contemplate an "intelligent Web". They are simply proposing to let users, content creators, and web developers assign descriptive meta-tags ("name of hotel") to fields, or to strings of symbols ("Hilton"). These meta-tags (arranged in semantic and relational "ontologies" - lists of metatags, their meanings and how they relate to each other) will be read by various applications and allow them to process the associated strings of symbols correctly (place the word "Hilton" in your address book under "hotels"). This will make information retrieval more efficient and reliable and the information retrieved is bound to be more relevant and amenable to higher level processing (statistics, the development of heuristic rules, etc.). The shift is from HTML (whose tags are concerned with visual appearances and content indexing) to languages such as the DARPA Agent Markup Language, OIL (Ontology Inference Layer or Ontology Interchange Language), or even XML (whose tags are concerned with content taxonomy, document structure, and semantics). This would bring the Internet closer to the classic library card catalogue.

Even in its current, pre-semantic, hyperlink-dependent, phase, the Internet brings to mind Richard Dawkins' seminal work "The Selfish Gene" (OUP, 1976). This would be doubly true for the Semantic Web.

Dawkins suggested to generalize the principle of natural selection to a law of the survival of the stable. "A stable thing is a collection of atoms which is permanent enough or common enough to deserve a name". He then proceeded to describe the emergence of "Replicators" - molecules which created copies of themselves. The Replicators that survived in the competition for scarce raw materials were characterized by high longevity, fecundity, and copying-fidelity. Replicators (now known as "genes") constructed "survival machines" (organisms) to shield them from the vagaries of an ever-harsher environment.

This is very reminiscent of the Internet. The "stable things" are HTML coded web pages. They are replicators - they create copies of themselves every time their "web address" (URL) is clicked. The HTML coding of a web page can be thought of as "genetic material". It contains all the information needed to reproduce the page. And, exactly as in nature, the higher the longevity, fecundity (measured in links to the web page from other web sites), and copying-fidelity of the HTML code - the higher its chances to survive (as a web page).

Replicator molecules (DNA) and replicator HTML have one thing in common - they are both packaged information. In the appropriate context (the right biochemical "soup" in the case of DNA, the right software application in the case of HTML code) - this information generates a "survival machine" (organism, or a web page).

The Semantic Web will only increase the longevity,

fecundity, and copying-fidelity or the underlying code (in this case, OIL or XML instead of HTML). By facilitating many more interactions with many other web pages and databases - the underlying "replicator" code will ensure the "survival" of "its" web page (=its survival machine). In this analogy, the web page's "DNA" (its OIL or XML code) contains "single genes" (semantic meta-tags). The whole process of life is the unfolding of a kind of Semantic Web.

In a prophetic paragraph, Dawkins described the Internet:

"The first thing to grasp about a modern replicator is that it is highly gregarious. A survival machine is a vehicle containing not just one gene but many thousands. The manufacture of a body is a cooperative venture of such intricacy that it is almost impossible to disentangle the contribution of one gene from that of another. A given gene will have many different effects on quite different parts of the body. A given part of the body will be influenced by many genes and the effect of any one gene depends on interaction with many others...In terms of the analogy, any given page of the plans makes reference to many different parts of the building; and each page makes sense only in terms of cross-reference to numerous other pages."

What Dawkins neglected in his important work is the concept of the Network. People congregate in cities, mate, and reproduce, thus providing genes with new "survival machines". But Dawkins himself suggested that the new Replicator is the "meme" - an idea, belief, technique, technology, work of art, or bit of information. Memes use human brains as "survival machines" and they hop from brain to brain and across time and space ("communications") in the process of cultural (as distinct

from biological) evolution. The Internet is a latter day meme-hopping playground. But, more importantly, it is a Network. Genes move from one container to another through a linear, serial, tedious process which involves prolonged periods of one on one gene shuffling ("sex") and gestation. Memes use networks. Their propagation is, therefore, parallel, fast, and all-pervasive. The Internet is a manifestation of the growing predominance of memes over genes. And the Semantic Web may be to the Internet what Artificial Intelligence is to classic computing. We may be on the threshold of a self-aware Web.

2. The Internet as a Chaotic Library

A. *The Problem of Cataloguing*

The Internet is an assortment of billions of pages which contain information. Some of them are visible and others are generated from hidden databases by users' requests ("Invisible Internet").

The Internet exhibits no discernible order, classification, or categorization. Amazingly, as opposed to "classical" libraries, no one has yet invented a (sorely needed) Internet cataloguing standard (remember Dewey?). Some sites indeed apply the Dewey Decimal System to their contents (Suite101). Others default to a directory structure (Open Directory, Yahoo!, Look Smart and others).

Had such a standard existed (an agreed upon numerical cataloguing method) - each site could have self-classified. Sites would have an interest to do so to increase their visibility. This, naturally, would have eliminated the need for today's clunky, incomplete and (highly) inefficient

search engines.

Thus, a site whose number starts with 900 will be immediately identified as dealing with history and multiple classification will be encouraged to allow finer cross-sections to emerge. An example of such an emerging technology of "self classification" and "self-publication" (though limited to scholarly resources) is the "Academic Resource Channel" by Scindex.

Moreover, users will not be required to remember reams of numbers. Future browsers will be akin to catalogues, very much like the applications used in modern day libraries. Compare this utopia to the current dystopy. Users struggle with mounds of irrelevant material to finally reach a partial and disappointing destination. At the same time, there likely are web sites which exactly match the poor user's needs. Yet, what currently determines the chances of a happy encounter between user and content - are the whims of the specific search engine used and things like meta-tags, headlines, a fee paid, or the right opening sentences.

B. ***Screen vs. Page***

The computer screen, because of physical limitations (size, the fact that it has to be scrolled) fails to effectively compete with the printed page. The latter is still the most ingenious medium yet invented for the storage and release of textual information. Granted: a computer screen is better at highlighting discrete units of information. So, these differing capacities draw the battle lines: structures (printed pages) versus units (screen), the continuous and easily reversible (print) versus the discrete (screen).

The solution lies in finding an efficient way to translate

computer screens to printed matter. It is hard to believe, but no such thing exists. Computer screens are still hostile to off-line printing. In other words: if a user copies information from the Internet to his word processor (or vice versa, for that matter) - he ends up with a fragmented, garbage-filled and non-aesthetic document.

Very few site developers try to do something about it - even fewer succeed.

C. *Dynamic vs. Static Interactions*

One of the biggest mistakes of content suppliers is that they do not provide a "static-dynamic interaction".

Internet-based content can now easily interact with other media (e.g., CD-ROMs) and with non-PC platforms (PDA's, mobile phones).

Examples abound:

A CD-ROM shopping catalogue interacts with a Web site to allow the user to order a product. The catalogue could also be updated through the site (as is the practice with CD-ROM encyclopedias). The advantages of the CD-ROM are clear: very fast access time (dozens of times faster than the access to a Web site using a dial up connection) and a data storage capacity hundreds of times bigger than the average Web page.

Another example:

A PDA plug-in disposable chip containing hundreds of advertisements or a "yellow pages". The consumer selects the ad or entry that she wants to see and connects to the Internet to view a relevant video. She could then also have an interactive chat (or a conference) with a salesperson,

receive information about the company, about the ad, about the advertising agency which created the ad - and so on.

CD-ROM based encyclopedias (such as the Britannica, or the Encarta) already contain hyperlinks which carry the user to sites selected by an Editorial Board.

Note

CD-ROMs are probably a doomed medium. Storage capacity continually increases exponentially and, within a year, desktops with 80 Gb hard disks will be a common sight. Moreover, the much heralded Network Computer - the stripped down version of the personal computer - will put at the disposal of the average user terabytes in storage capacity and the processing power of a supercomputer. What separates computer users from this utopia is the communication bandwidth. With the introduction of radio and satellite broadband services, DSL and ADSL, cable modems coupled with advanced compression standards - video (on demand), audio and data will be available speedily and plentifully.

The CD-ROM, on the other hand, is not mobile. It requires installation and the utilization of sophisticated hardware and software. This is no user friendly push technology. It is nerd-oriented. As a result, CD-ROMs are not an immediate medium. There is a long time lapse between the moment of purchase and the moment the user accesses the data. Compare this to a book or a magazine. Data in these oldest of media is instantly available to the user and they allow for easy and accurate "back" and "forward" functions.

Perhaps the biggest mistake of CD-ROM manufacturers

has been their inability to offer an integrated hardware and software package. CD-ROMs are not compact. A Walkman is a compact hardware-cum-software package. It is easily transportable, it is thin, it contains numerous, user-friendly, sophisticated functions, it provides immediate access to data. So does the discman, or the MP3-man, or the new generation of e-books (e.g., E-Ink's). This cannot be said about the CD-ROM. By tying its future to the obsolete concept of stand-alone, expensive, inefficient and technologically unreliable personal computers - CD-ROMs have sentenced themselves to oblivion (with the possible exception of reference material).

D. *Online Reference*

A visit to the on-line Encyclopaedia Britannica demonstrates some of the tremendous, mind boggling possibilities of online reference - as well as some of the obstacles.

Each entry in this mammoth work of reference is hyperlinked to relevant Web sites. The sites are carefully screened. Links are available to data in various forms, including audio and video. Everything can be copied to the hard disk or to a R/W CD.

This is a new conception of a knowledge centre - not just a heap of material. The content is modular and continuously enriched. It can be linked to a voice Q&A centre. Queries by subscribers can be answered by e-mail, by fax, posted on the site, hard copies can be sent by post. This "Trivial Pursuit" or "homework" service could be very popular - there is considerable appetite for "Just in Time Information". The Library of Congress - together with a few other libraries - is in the process of making just

such a service available to the public (CDRS - Collaborative Digital Reference Service).

E. *Derivative Content*

The Internet is an enormous reservoir of archives of freely accessible, or even public domain, information.

With a minimal investment, this information can be gathered into coherent, theme oriented, cheap compilations (on CD-ROMs, print, e-books or other media).

F. *E-Publishing*

The Internet is by far the world's largest publishing platform. It incorporates FAQs (Q&A's regarding almost every technical matter in the world), e-zines (electronic magazines), the electronic versions of print dailies and periodicals (in conjunction with on-line news and information services), reference material, e-books, monographs, articles, minutes of discussions ("threads"), conference proceedings, and much more besides.

The Internet represents major advantages to publishers. Consider the electronic version of a p-zine.

Publishing an e-zine promotes the sales of the printed edition, it helps sign on subscribers and it leads to the sale of advertising space. The electronic archive function (see next section) saves the need to file back issues, the physical space required to do so and the irritating search for data items.

The future trend is a combined subscription to both the electronic edition (mainly for the archival value and the ability to hyperlink to additional information) and to the

print one (easier to browse the current issue). The Economist is already offering free access to its electronic archives as an inducement to its print subscribers.

The electronic daily presents other advantages:

It allows for immediate feedback and for flowing, almost real-time, communication between writers and readers. The electronic version, therefore, acquires a gyroscopic function: a navigation instrument, always indicating deviations from the "right" course. The content can be instantly updated and breaking news incorporated in older content.

Specialty hand held devices already allow for downloading and storage of vast quantities of data (up to 4000 print pages). The user gains access to libraries containing hundreds of texts, adapted to be downloaded, stored and read by the specific device. Again, a convergence of standards is to be expected in this field as well (the final contenders will probably be Adobe's PDF against Microsoft's MS-Reader).

Currently, e-books are dichotomously treated either as:

Continuation of print books (p-books) by other means, or as a whole new publishing universe.

Since p-books are a more convenient medium then e-books - they will prevail in any straightforward "medium replacement" or "medium displacement" battle.

In other words, if publishers will persist in the simple and straightforward conversion of p-books to e-books - then e-books are doomed. They are simply inferior and cannot offer the comfort, tactile delights, browseability and scanability of p-books.

But e-books - being digital - open up a vista of hitherto neglected possibilities. These will only be enhanced and enriched by the introduction of e-paper and e-ink. Among them:

- Hyperlinks within the e-book and without it - to web content, reference works, etc.;
- Embedded instant shopping and ordering links;
- Divergent, user-interactive, decision driven plotlines;
- Interaction with other e-books (using a wireless standard) - collaborative authoring or reading groups;
- Interaction with other e-books - gaming and community activities;
- Automatically or periodically updated content;
- Multimedia;
- Database, Favourites, Annotations, and History Maintenance (archival records of reading habits, shopping habits, interaction with other readers, plot related decisions and much more);
- Automatic and embedded audio conversion and translation capabilities;
- Full wireless piconetworking and scatternetworking capabilities.

The technology is still not fully there. Wars rage in both the wireless and the e-book realms. Platforms compete. Standards clash. Gurus debate. But convergence is

inevitable and with it the e-book of the future.

G. *The Archive Function*

The Internet is also the world's biggest cemetery: tens of thousands of deadbeat sites, still accessible - the "Ghost Sites" of this electronic frontier.

This, in a way, is collective memory. One of the Internet's main functions will be to preserve and transfer knowledge through time. It is called "memory" in biology - and "archive" in library science. The history of the Internet is being documented by search engines (Google) and specialized services (Alexa) alike.

3. The Internet as a Collective Nervous System

Drawing a comparison from the development of a human infant - the human race has just commenced to develop its neural system.

The Internet fulfils all the functions of the Nervous System in the body and is, both functionally and structurally, pretty similar. It is decentralized, redundant (each part can serve as functional backup in case of malfunction). It hosts information which is accessible through various paths, it contains a memory function, it is multimodal (multimedia - textual, visual, audio and animation).

I believe that the comparison is not superficial and that studying the functions of the brain (from infancy to adulthood) is likely to shed light on the future of the Net itself. The Net - exactly like the nervous system - provides

pathways for the transport of goods and services - but also of memes and information, their processing, modeling, and integration.

A. *The Collective Computer*

Carrying the metaphor of "a collective brain" further, we would expect the processing of information to take place on the Internet, rather than inside the end-user's hardware (the same way that information is processed in the brain, not in the eyes). Desktops will receive results and communicate with the Net to receive additional clarifications and instructions and to convey information gathered from their environment (mostly, from the user).

Put differently:

In future, servers will contain not only information (as they do today) - but also software applications. The user of an application will not be forced to buy it. He will not be driven into hardware-related expenditures to accommodate the ever growing size of applications. He will not find himself wasting his scarce memory and computing resources on passive storage. Instead, he will use a browser to call a central computer. This computer will contain the needed software, broken to its elements (=applets, small applications). Anytime the user wishes to use one of the functions of the application, he will siphon it off the central computer. When finished - he will "return" it. Processing speeds and response times will be such that the user will not feel at all that he is not interacting with his own software (the question of ownership will be very blurred). This technology is available and it provoked a heated debated about the future shape of the computing industry as a whole (desktops - really power packs - or network computers, a

little more than dumb terminals). Access to online applications are already offered to corporate users by ASPs (Application Service Providers).

In the last few years, scientists have harnessed the combined power of online PC's to perform astounding feats of distributed parallel processing. Millions of PCs connected to the net co-process signals from outer space, meteorological data, and solve complex equations. This is a prime example of a collective brain in action.

B. ***The Intranet - a Logical Extension of the Collective Computer***

LANs (Local Area Networks) are no longer a rarity in corporate offices. WANs (wide Area Networks) are used to connect geographically dispersed organs of the same legal entity (branches of a bank, daughter companies of a conglomerate, a sales force). Many LANs and WANs are going wireless.

The wireless intranet/extranet and LANs are the wave of the future. They will gradually eliminate their fixed line counterparts. The Internet offers equal, platform-independent, location-independent and time of day - independent access to corporate memory and nervous system. Sophisticated firewall security applications protect the privacy and confidentiality of the intranet from all but the most determined and savvy crackers.

The Intranet is an inter-organizational communication network, constructed on the platform of the Internet and it, therefore, enjoys all its advantages. The extranet is open to clients and suppliers as well.

The company's server can be accessed by anyone authorized, from anywhere, at any time (with local - rather

than international - communication costs). The user can leave messages (internal e-mail or v-mail), access information - proprietary or public - from it, and participate in "virtual teamwork" (see next chapter).

The development of measures to safeguard server routed inter-organizational communication (firewalls) is the solution to one of two obstacles to the institutionalization of Intranets. The second problem is the limited bandwidth which does not permit the efficient transfer of audio (not to mention video).

It is difficult to conduct video conferencing through the Internet. Even the voices of discussants who use internet phones (IP telephony) come out (though very slightly) distorted.

All this did not prevent 95% of the Fortune 1000 from installing intranet. 82% of the rest intend to install one by the end of this year. Medium to big size American firms have 50-100 intranet terminals per every internet one.

One of the greatest advantages of the intranet is the ability to transfer documents between the various parts of an organization. Consider Visa: it pushed 2 million documents per day internally in 1996.

An organization equipped with an intranet can (while protected by firewalls) give its clients or suppliers access to non-classified correspondence, or inventory systems. Many B2B exchanges and industry-specific purchasing management systems are based on extranets.

C. *The Transport of Information - Mail and Chat*

The Internet (its e-mail function) is eroding traditional mail. 90% of customers with on-line access use e-mail

from time to time and 60% work with it regularly. More than 2 billion messages traverse the internet daily.

E-mail applications are available as freeware and are included in all browsers. Thus, the Internet has completely assimilated what used to be a separate service, to the extent that many people make the mistake of thinking that e-mail is a feature of the Internet.

The internet will do to phone calls what it has done to mail. Already there are applications (Intel's, Vocaltec's, Net2Phone) which enable the user to conduct a phone conversation through his computer. The voice quality has improved. The discussants can cut into each others words, argue and listen to tonal nuances. Today, the parties (two or more) engaging in the conversation must possess the same software and the same (computer) hardware. In the very near future, computer-to-regular phone applications will eliminate this requirement. And, again, simultaneous multi-modality: the user can talk over the phone, see his party, send e-mail, receive messages and transfer documents - without obstructing the flow of the conversation.

The cost of transferring voice will become so negligible that free voice traffic is conceivable in 3-5 years. Data traffic will overtake voice traffic by a wide margin.

The next phase will probably involve virtual reality. Each of the parties will be represented by an "avatar", a 3-D figurine generated by the application (or the user's likeness mapped and superimposed on the the avatar). These figurines will be multi-dimensional: they will possess their own communication patterns, special habits, history, preferences - in short: their own "personality".

Thus, they will be able to maintain an "identity" and a consistent pattern of communication which they will develop over time.

Such a figure could host a site, accept, welcome and guide visitors, all the time bearing their preferences in its electronic "mind". It could narrate the news, like the digital anchor "Ananova" does. Visiting sites in the future is bound to be a much more pleasant affair.

D. ***The Transport of Value - E-cash***

In 1996, four corporate giants (Visa, MasterCard, Netscape and Microsoft) agreed on a standard for effecting secure payments through the Internet: SET. Internet commerce is supposed to mushroom to $25 billion by 2003. Site owners will be able to collect rent from passing visitors - or fees for services provided within the site. Amazon instituted an honour system to collect donations from visitors. PayPal provides millions of users with cash substitutes. Gradually, the Internet will compete with central banks and banking systems in money creation and transfer.

E. ***The Transport of Interactions - The Virtual Organization***

The Internet allows for simultaneous communication and the efficient transfer of multimedia (video included) files between an unlimited number of users. This opens up a vista of mind boggling opportunities which are the real core of the Internet revolution: the virtual collaborative ("Follow the Sun") modes.

Examples:

A group of musicians is able to compose music or play it -

while spatially and temporally separated;

Advertising agencies are able to co-produce ad campaigns in a real time interaction;

Cinema and TV films are produced from disparate geographical spots through the teamwork of people who never meet, except through the Net.

These examples illustrate the concept of the "virtual community". Space and time will no longer hinder team collaboration, be it scientific, artistic, cultural, or an ad hoc arrangement for the provision of a service (a virtual law firm, or accounting office, or a virtual consultancy network). The intranet can also be thought of as a "virtual organization", or a "virtual business".

The virtual mall and the virtual catalogue are prime examples of spatial and temporal liberation.

In 1998, there were well over 300 active virtual malls on the Internet. In 2000, they were frequented by 46 million shoppers, who shopped in them for goods and services.

The virtual mall is an Internet "space" (pages) wherein "shops" are located. These shops offer their wares using visual, audio and textual means. The visitor passes through a virtual "gate" or storefront and examines the merchandise on offer, until he reaches a buying decision. Then he engages in a feedback process: he pays (with a credit card), buys the product, and waits for it to arrive by mail (or downloads it).

The manufacturers of digital products (intellectual property such as e-books or software) have begun selling their merchandise on-line, as file downloads. Yet, slow communications speeds, competing file formats and

reader standards, and limited bandwidth - constrain the growth potential of this mode of sale. Once resolved - intellectual property will be sold directly from the Net, on-line. Until such time, the mediation of the Post Office is still required. As long as this is the state of the art, the virtual mall is nothing but a glorified computerized mail catalogue or Buying Channel, the only difference being the exceptionally varied inventory.

Websites which started as "specialty stores" are fast transforming themselves into multi-purpose virtual malls. Amazon.com, for instance, has bought into a virtual pharmacy and into other virtual businesses. It is now selling music, video, electronics and many other products. It started as a bookstore.

This contrasts with a much more creative idea: the virtual catalogue. It is a form of narrowcasting (as opposed to broadcasting): a surgically accurate targeting of potential consumer audiences. Each group of profiled consumers (no matter how small) is fitted with their own - digitally generated - catalogue. This is updated daily: the variety of wares on offer (adjusted to reflect inventory levels, consumer preferences, and goods in transit) - and prices (sales, discounts, package deals) change in real time. Amazon has incorporated many of these features on its web site. The user enters its web site and there delineates his consumption profile and his preferences. A customized catalogue is immediately generated for him including specific recommendations. The history of his purchases, preferences and responses to feedback questionnaires is accumulated in a database. This intellectual property may well be Amazon's main asset.

There is no technological obstacles to implementing this vision today - only administrative and legal (patent) ones.

Big brick and mortar retail stores are not up to processing the flood of data expected to result. They also remain highly sceptical regarding the feasibility of the new medium. And privacy issues prevent data mining or the effective collection and usage of personal data (remember the case of Amazon's "Readers' Circles").

The virtual catalogue is a private case of a new internet off-shoot: the "smart (shopping) agents". These are AI applications with "long memories".

They draw detailed profiles of consumers and users and then suggest purchases and refer to the appropriate sites, catalogues, or virtual malls.

They also provide price comparisons and the new generation cannot be blocked or fooled by using differing product categories.

In the future, these agents will cover also brick and mortar retail chains and, in conjunction with wireless, location-specific services, issue a map of the branch or store closest to an address specified by the user (the default being his residence), or yielded by his GPS enabled wireless mobile or PDA. This technology can be seen in action in a few music sites on the web and is likely to be dominant with wireless internet appliances. The owner of an internet enabled (third generation) mobile phone is likely to be the target of geographically-specific marketing campaigns, ads and special offers pertaining to his current location (as reported by his GPS - satellite Geographic Positioning System).

F. *The Transport of Information - Internet News*

Internet news are advantaged. They are frequently and dynamically updated (unlike static print news) and are

always accessible (similar to print news), immediate and fresh.

The future will witness a form of interactive news. A special "corner" in the news Web site will accommodate "breaking news" posted by members of the the public (or corporate press releases). This will provide readers with a glimpse into the making of the news, the raw material news are made of. The same technology will be applied to interactive TVs. Content will be downloaded from the internet and displayed as an overlay on the TV screen or in a box in it. The contents downloaded will be directly connected to the TV programming. Thus, the biography and track record of a football player will be displayed during a football match and the history of a country when it gets news coverage.

4. Terra Internetica - Internet, an Unknown Continent

Laymen and experts alike talk about "sites" and "advertising space". Yet, the Internet was never compared to a new continent whose surface is infinite.

The Internet has its own real estate developers and construction companies. The real life equivalents derive their profits from the scarcity of the resource that they exploit - the Internet counterparts derive their profits from the tenants (content producers and distributors, e-tailers, and others).

Entrepreneurs bought "Internet Space" (pages, domain names, portals) and leveraged their acquisition commercially by:

- Renting space out;

- Constructing infrastructure on their property and selling it;
- Providing an intelligent gateway, entry point (portal) to the rest of the internet;
- Selling advertising space which subsidizes the tenants (Yahoo!-Geocities, Tripod and others);
- Cybersquatting (purchasing specific domain names identical to brand names in the "real" world) and then selling the domain name to an interested party.

Internet Space can be easily purchased or created. The investment is low and getting lower with the introduction of competition in the field of domain registration services and the increase in the number of top domains.

Then, infrastructure can be erected - for a shopping mall, for free home pages, for a portal, or for another purpose. It is precisely this infrastructure that the developer can later sell, lease, franchise, or rent out.

But this real estate bubble was the culmination of a long and tortuous process.

At the beginning, only members of the fringes and the avant-garde (inventors, risk assuming entrepreneurs, gamblers) invest in a new invention. No one knows to say what are the optimal uses of the invention (in other words, what is its future). Many - mostly members of the scientific and business elites - argue that there is no real need for the invention and that it substitutes a new and untried way for old and tried modes of doing the same things (so why assume the risk of investing in the unknown and the untried?).

Moreover, these criticisms are usually well-founded.

To start with, there is, indeed, no need for the new medium. A new medium invents itself - and the need for it. It also generates its own market to satisfy this newly found need.

Two prime examples of this self-recursive process are the personal computer and the compact disc.

When the PC was invented, its uses were completely unclear. Its performance was lacking, its abilities limited, it was unbearably user unfriendly. It suffered from faulty design, was absent any user comfort and ease of use and required considerable professional knowledge to operate. The worst part was that this knowledge was exclusive to the new invention (not portable). It reduced labour mobility and limited one's professional horizons. There were many gripes among workers assigned to tame the new beast. Managers regarded it at best as a nuisance.

The PC was thought of, at the beginning, as a sophisticated gaming machine, an electronic baby-sitter. It included a keyboard, so it was thought of in terms of a glorified typewriter or spreadsheet. It was used mainly as a word processor (and the outlay justified solely on these grounds). The spreadsheet was the first real PC application and it demonstrated the advantages inherent to this new machine (mainly flexibility and speed). Still, it was more of the same. A speedier sliding ruler. After all, said the unconvinced, what was the difference between this and a hand held calculator (some of them already had computing, memory and programming features)?

The PC was recognized as a medium only 30 years after it was invented with the introduction of multimedia

software. All this time, the computer continued to spin off markets and secondary markets, needs and professional specialties. The talk as always was centred on how to improve on ***existing*** markets and solutions.

The Internet is the computer's first important application. Hitherto the computer was only quantitatively different to other computing or gaming devices. Multimedia and the Internet have made it qualitatively superior, sui generis, unique.

Part of the problem was that the Internet was invented, is maintained and is operated by computer professionals. For decades these people have been conditioned to think in Olympic terms: faster, stronger, higher - not in terms of the new, the unprecedented, or the non-existent. Engineers are trained to improve - seldom to invent. With few exceptions, its creators stumbled across the Internet - it invented itself despite them.

Computer professionals (hardware and software experts alike) - are linear thinkers. The Internet is non linear and modular.

It is still the age of hackers. There is still a lot to be done in improving technological prowess and powers. But their control of the contents is waning and they are being gradually replaced by communicators, creative people, advertising executives, psychologists, venture capitalists, and the totally unpredictable masses who flock to flaunt their home pages and graphomania.

These all are attuned to the user, his mental needs and his information and entertainment preferences.

The compact disc is a different tale. It was intentionally invented to improve upon an existing technology

(basically, Edison's Gramophone). Market-wise, this was a major gamble. The improvement was, at first, debatable (many said that the sound quality of the first generation of compact discs was inferior to that of its contemporaneous record players). Consumers had to be convinced to change both software and hardware and to dish out thousands of dollars just to listen to what the manufacturers claimed was more a authentically reproduced sound. A better argument was the longer life of the software (though when contrasted with the limited life expectancy of the consumer, some of the first sales pitches sounded absolutely morbid).

The computer suffered from unclear positioning. The compact disc was very clear as to its main functions - but had a rough time convincing the consumers that it was needed.

Every medium is first controlled by the technical people. Gutenberg was a printer - not a publisher. Yet, he is the world's most famous publisher. The technical cadre is joined by dubious or small-scale entrepreneurs and, together, they establish ventures with no clear vision, market-oriented thinking, or orderly plan of action. The legislator is also dumbfounded and does not grasp what is happening - thus, there is no legislation to regulate the use of the medium. Witness the initial confusion concerning copyrighted vs. licenced software, e-books, and the copyrights of ROM embedded software. Abuse or under-utilization of resources grow. The sale of radio frequencies to the first cellular phone operators in the West - a situation which repeats itself in Eastern and Central Europe nowadays - is an example.

But then more complex transactions - exactly as in real estate in "real life" - begin to emerge. The Internet is

likely to converge with "real life". It is likely to be dominated by brick and mortar entities which are likely to import their business methods and management. As its eccentric past (the dot.com boom and the dot.bomb bust) recedes - a sustainable and profitable future awaits it.

Interpellation

With the exception of Nietzsche, no other madman has contributed so much to human sanity as has Louis Althusser. He is mentioned twice in the Encyclopaedia Britannica as someone's teacher. There could be no greater lapse: for two important decades (the 60s and the 70s), Althusser was at the eye of all the important cultural storms. He fathered quite a few of them.

This newly-found obscurity forces me to summarize his work before suggesting a few (minor) modifications to it.

(1) Society consists of practices: economic, political and ideological.

Althusser defines a practice as:

"Any process of transformation of a determinate product, affected by a determinate human labour, using determinate means (of production)"

The economic practice (the historically specific mode of production) transforms raw materials to finished products using human labour and other means of production, all organized within defined webs of inter-relations. The political practice does the same with social relations as the raw materials. Finally, ideology is the transformation of the way that a subject relates to his real life conditions of existence.

This is a rejection of the mechanistic worldview (replete with bases and superstructures). It is a rejection of the Marxist theorization of ideology. It is a rejection of the Hegelian fascist ***"social totality".*** It is a dynamic, revealing, modern day model.

In it, the very existence and reproduction of the social base (not merely its expression) is dependent upon the social superstructure. The superstructure is "***relatively autonomous"*** and ideology has a central part in it - see entry about Marx and Engels and entry concerning Hegel.

The economic structure is determinant but another structure could be dominant, depending on the historical conjuncture. Determination (now called over-determination - see Note) specifies the form of economic production upon which the dominant practice depends. Put otherwise: the economic is determinant not because the practices of the social formation (political and ideological) are the social formation's expressive epiphenomena - but because it determines WHICH of them is dominant.

(2) People relate to the conditions of existence through the practice of ideology. Contradictions are smoothed over and (real) problems are offered false (though seemingly true) solutions. Thus, ideology has a realistic dimension - and a dimension of representations (myths, concepts, ideas, images). There is (harsh, conflicting) reality - and the way that we represent it both to ourselves and to others.

(3) To achieve the above, ideology must not be seen to err or, worse, remain speechless. It, therefore, confronts and poses (to itself) only answerable questions. This way, it remains confined to a fabulous, legendary, contradiction-

free domain. It ignores other questions altogether.

(4) Althusser introduced the concept of "The Problematic":

***"The objective internal reference ... the system of questions
commanding the answers given"***

It determines which problems, questions and answers are part of the game - and which should be blacklisted and never as much as mentioned. It is a structure of theory (ideology), a framework and the repertoire of discourses which - ultimately - yield a text or a practice. All the rest is excluded.

It, therefore, becomes clear that what is omitted is of no less importance than what is included in a text. The problematic of a text relates to its historical context ("moment") by incorporating both: inclusions as well as omissions, presences as much as absences. The problematic of the text fosters the generation of answers to posed questions - and of defective answers to excluded questions.

(5) The task of ***"scientific"*** (e.g., Marxist) discourse, of Althusserian critical practice is to deconstruct the problematic, to read through ideology and evidence the real conditions of existence. This is a ***"symptomatic reading"*** of TWO TEXTS:

***"It divulges the undivulged event in the text that it reads and, in the
same movement, relates to it a different text, present, as a necessary
absence, in the first ... (Marx's reading of Adam Smith) presupposes***

the existence of two texts and the measurement of the first against
the second. But what distinguishes this new reading from the old,
is the fact that in the new one, the second text is articulated with the
lapses in the first text ... (Marx measures) the problematic contained
in the paradox of an answer which does not correspond to any questions posed."

Althusser is contrasting the manifest text with a latent text which is the result of the lapses, distortions, silences and absences in the manifest text. The latent text is the "diary of the struggle" of the unposed question to be posed and answered.

(6) Ideology is a practice with lived and material dimensions. It has costumes, rituals, behaviour patterns, ways of thinking. The State employs Ideological Apparatuses (ISAs) to reproduce ideology through practices and productions: (organized) religion, the education system, the family, (organized) politics, the media, the industries of culture.

"All ideology has the function (which defines it) of 'constructing'
concrete individuals as subjects"

Subjects to what? The answer: to the material practices of the ideology. This (the creation of subjects) is done by the acts of "hailing" or "interpellation". These are acts of attracting attention (hailing) , forcing the individuals to generate meaning (interpretation) and making them participate in the practice.

These theoretical tools were widely used to analyze the Advertising and the film industries.

The ideology of consumption (which is, undeniably, the most material of all practices) uses advertising to transform individuals to subjects (=to consumers). It uses advertising to interpellate them. The advertisements attract attention, force people to introduce meaning to them and, as a result, to consume. The most famous example is the use of "People like you (buy this or do that)" in ads. The reader / viewer is interpellated both as an individual ("you") and as a member of a group ("people like..."). He occupies the empty (imaginary) space of the "you" in the ad. This is ideological "misrecognition". First, many others misrecognize themselves as that "you" (an impossibility in the real world). Secondly, the misrecognized "you" exists only in the ad because it was created by it, it has no real world correlate.

The reader or viewer of the ad is transformed into the subject of (and subject to) the material practice of the ideology (consumption, in this case).

Althusser was a Marxist. The dominant mode of production in his days (and even more so today) was capitalism. His implied criticism of the material dimensions of ideological practices should be taken with more than a grain of salt. Interpellated by the ideology of Marxism himself, he generalized on his personal experience and described ideologies as infallible, omnipotent, ever successful. Ideologies, to him, were impeccably functioning machines which can always be relied upon to reproduce subjects with all the habits and thought patterns required by the dominant mode of production.

And this is where Althusser fails, trapped by dogmatism and more than a touch of paranoia. He neglects to treat two all-important questions (his problematic may have not allowed it):

(a) What do ideologies look for? Why do they engage in their practice? What is the ultimate goal?

(b) What happens in a pluralistic environment rich in competing ideologies?

Althusser stipulates the existence of two texts, manifest and hidden. The latter co-exists with the former, very much as a black figure defines its white background. The background is also a figure and it is only arbitrarily - the result of historical conditioning - that we bestow a preferred status upon the one. The latent text can be extracted from the manifest one by listening to the absences, the lapses and the silences in the manifest text.

But: what dictates the laws of extraction? how do we know that the latent text thus exposed is THE right one? Surely, there must exist a procedure of comparison, authentication and verification of the latent text?

A comparison of the resulting latent text to the manifest text from which it was extracted would be futile because it would be recursive. This is not even a process of iteration. It is teutological. There must exist a THIRD, "master-text", a privileged text, historically invariant, reliable, unequivocal (indifferent to interpretation-frameworks), universally accessible, atemporal and non-spatial. This third text is COMPLETE in the sense that it includes both the manifest and the latent. Actually, it should include all the possible texts (a LIBRARY function). The historical moment will determine which of them will be manifest

and which latent, according to the needs of the mode of production and the various practices. Not all these texts will be conscious and accessible to the individual but such a text would embody and dictate the rules of comparison between the manifest text and ITSELF (the Third Text) , being the COMPLETE text.

Only through a comparison between a partial text and a complete text can the deficiencies of the partial text be exposed. A comparison between partial texts will yield no certain results and a comparison between the text and itself (as Althusser suggests) is absolutely meaningless.

This Third Text is the human psyche. We constantly compare texts that we read to this Third Text, a copy of which we all carry with us. We are unaware of most of the texts incorporated in this master text of ours. When faced with a manifest text which is new to us, we first "download" the "rules of comparison (engagement)". We sift through the manifest text. We compare it to our COMPLETE master text and see which parts are missing. These constitute the latent text. The manifest text serves as a trigger which brings to our consciousness appropriate and relevant portions of the Third Text. It also generates the latent text in us.

If this sounds familiar it is because this pattern of confronting (the manifest text), comparing (with our master text) and storing the results (the latent text and the manifest text are brought to consciousness) - is used by mother nature itself. The DNA is such a "Master Text, Third Text". It includes all the genetic-biological texts some manifest, some latent. Only stimuli in its environment (=a manifest text) can provoke it to generate its own (hitherto latent) "text". The same would apply to computer applications.

The Third Text, therefore, has an invariant nature (it includes all possible texts) - and, yet, is changeable by interacting with manifest texts. This contradiction is only apparent. The Third Text does not change - only different parts of it are brought to our awareness as a result of the interaction with the manifest text. We can also safely say that one does not need to be an Althusserian critic or engage in "scientific" discourse to deconstruct the problematic. Every reader of text immediately and always deconstructs it. The very act of reading involves comparison with the Third Text which inevitably leads to the generation of a latent text.

And this precisely is why some interpellations fail. The subject deconstructs every message even if he is not trained in critical practice. He is interpellated or fails to be interpellated depending on what latent message was generated through the comparison with the Third Text. And because the Third Text includes ALL possible texts, the subject is given to numerous competing interpellations offered by many ideologies, mostly at odds with each other. The subject is in an environment of COMPETING INTERPELLATIONS (especially in this day and age of information glut). The failure of one interpellation - normally means the success of another (whose interpellation is based on the latent text generated in the comparison process or on a manifest text of its own, or on a latent text generated by another text).

There are competing ideologies even in the most severe of authoritarian regimes. Sometimes, IASs within the same social formation offer competing ideologies: the political Party, the Church, the Family, the Army, the Media, the Civilian Regime, the Bureaucracy. To assume that interpellations are offered to the potential subjects

successively (and not in parallel) defies experience (though it does simplify the thought-system).

Clarifying the HOW, though, does not shed light on the WHY.

Advertising leads to the interpellation of the subject to effect the material practice of consumption. Put more simply: there is money involved. Other ideologies - propagated through organized religions, for instance - lead to prayer. Could this be the material practice that they are looking for? No way. Money, prayer, the very ability to interpellate - they are all representations of power over other human beings. The business concern, the church, the political party, the family, the media, the culture industries - are all looking for the same thing: influence, power, might. Absurdly, interpellation is used to secure one paramount thing: the ability to interpellate. Behind every material practice stands a psychological practice (very much as the Third Text - the psyche - stands behind every text, latent or manifest).

The media could be different: money, spiritual prowess, physical brutality, subtle messages. But everyone (even individuals in their private life) is looking to hail and interpellate others and thus manipulate them to succumb to their material practices. A short sighted view would say that the businessman interpellates in order to make money. But the important question is: what ever for? What drives ideologies to establish material practices and to interpellate people to participate in them and become subjects? The will to power. the wish to be able to interpellate. It is this cyclical nature of Althusser's teachings (ideologies interpellate in order to be able to interpellate) and his dogmatic approach (ideologies never fail) which doomed his otherwise brilliant observations to

oblivion.

Note

In Althusser's writings the Marxist determination remains as Over-determination. This is a structured articulation of a number of contradictions and determinations (between the practices). This is very reminiscent of Freud's Dream Theory and of the concept of Superposition in Quantum Mechanics.

Intuition

I. **The Three Intuitions**

IA. ***Eidetic Intuitions***

Intuition is supposed to be a form of direct access. Yet, direct access to what? Does it access directly "intuitions" (abstract objects, akin to numbers or properties - see "Bestowed Existence")? Are intuitions the objects of the mental act of Intuition? Perhaps intuition is the mind's way of interacting directly with Platonic ideals or Phenomenological "essences"? By "directly" I mean without the intellectual mediation of a manipulated symbol system, and without the benefits of inference, observation, experience, or reason.

Kant thought that both (Euclidean) space and time are intuited. In other words, he thought that the senses interact with our (transcendental) intuitions to produce synthetic a-priori knowledge. The raw data obtained by our senses -our sensa or sensory experience - presuppose intuition. One could argue that intuition is independent of our senses. Thus, these intuitions (call them "eidetic intuitions") would not be the result of sensory data, or of calculation, or of the processing and manipulation of

same. Kant's "Erscheiung" ("phenomenon", or "appearance" of an object to the senses) is actually a kind of sense-intuition later processed by the categories of substance and cause. As opposed to the phenomenon, the "nuomenon" (thing in itself) is not subject to these categories.

Descartes' "I (think therefore I) am" is an immediate and indubitable innate intuition from which his metaphysical system is derived. Descartes' work in this respect is reminiscent of Gnosticism in which the intuition of the mystery of the self leads to revelation.

Bergson described a kind of instinctual empathic intuition which penetrates objects and persons, identifies with them and, in this way, derives knowledge about the absolutes - "duration" (the essence of all living things) and "élan vital" (the creative life force). He wrote: "(Intuition is an) instinct that has become disinterested, self-conscious, capable of reflecting upon its object and of enlarging it indefinitely." Thus, to him, science (the use of symbols by our intelligence to describe reality) is the falsification of reality. Only art, based on intuition, unhindered by mediating thought, not warped by symbols - provides one with access to reality.

Spinoza's and Bergson's intuited knowledge of the world as an interconnected whole is also an "eidetic intuition".

Spinoza thought that intuitive knowledge is superior to both empirical (sense) knowledge and scientific (reasoning) knowledge. It unites the mind with the Infinite Being and reveals to it an orderly, holistic, Universe.

Friedrich Schleiermacher and Rudolf Otto discussed the religious experience of the "numinous" (God, or the

spiritual power) as a kind of intuitive, pre-lingual, and immediate feeling.

Croce distinguished "concept" (representation or classification) from "intuition" (expression of the individuality of an objet d'art). Aesthetic interest is intuitive. Art, according to Croce and Collingwood, should be mainly concerned with expression (i.e., with intuition) as an end unto itself, unconcerned with other ends (e.g., expressing certain states of mind).

Eidetic intuitions are also similar to "paramartha satya" (the "ultimate truth") in the Madhyamika school of Buddhist thought. The ultimate truth cannot be expressed verbally and is beyond empirical (and illusory) phenomena. Eastern thought (e.g. Zen Buddhism) uses intuition (or experience) to study reality in a non-dualistic manner.

IB. ***Emergent Intuitions***

A second type of intuition is the "emergent intuition". Subjectively, the intuiting person has the impression of a "shortcut" or even a "short circuiting" of his usually linear thought processes often based on trial and error. This type of intuition feels "magical", a quantum leap from premise to conclusion, the parsimonious selection of the useful and the workable from a myriad possibilities. Intuition, in other words, is rather like a dreamlike truncated thought process, the subjective equivalent of a wormhole in Cosmology. It is often preceded by periods of frustration, dead ends, failures, and blind alleys in one's work.

Artists - especially performing artists (like musicians) - often describe their interpretation of an artwork (e.g., a musical piece) in terms of this type of intuition. Many

mathematicians and physicists (following a kind of Pythagorean tradition) use emergent intuitions in solving general nonlinear equations (by guessing the approximants) or partial differential equations.

Henri Poincaret insisted (in a presentation to the Psychological Society of Paris, 1901) that even simple mathematical operations require an "intuition of mathematical order" without which no creativity in mathematics is possible. He described how some of his creative work occurred to him out of the blue and without any preparation, the result of emergent intuitions. These intuitions had "the characteristics of brevity, suddenness and immediate certainty... Most striking at first is this appearance of sudden illumination, a manifest sign of long, unconscious prior work. The role of this unconscious work in mathematical invention appears to me incontestable, and traces of it would be found in other cases where it is less evident."

Subjectively, emergent intuitions are indistinguishable from insights. Yet insight is more "cognitive" and structured and concerned with objective learning and knowledge. It is a novel reaction or solution, based on already acquired responses and skills, to new stimuli and challenges. Still, a strong emotional (e.g., aesthetic) correlate usually exists in both insight and emergent intuition.

Intuition and insight are strong elements in creativity, the human response to an ever changing environment. They are shock inducers and destabilizers. Their aim is to move the organism from one established equilibrium to the next and thus better prepare it to cope with new possibilities, challenges, and experiences. Both insight and intuition are in the realm of the unconscious, the simple, and the

mentally disordered. Hence the great importance of obtaining insights and integrating them in psychoanalysis - an equilibrium altering therapy.

IC. ***Ideal Intuitions***

The third type of intuition is the "ideal intuition". These are thoughts and feelings that precede any intellectual analysis and underlie it. Moral ideals and rules may be such intuitions (see "Morality - a State of Mind?"). Mathematical and logical axioms and basic rules of inference ("necessary truths") may also turn out to be intuitions. These moral, mathematical, and logical self-evident conventions do not relate to the world. They are elements of the languages we use to describe the world (or of the codes that regulate our conduct in it). It follows that these a-priori languages and codes are nothing but the set of our embedded ideal intuitions.

As the Rationalists realized, ideal intuitions (a class of undeniable, self-evident truths and principles) can be accessed by our intellect. Rationalism is concerned with intuitions - though only with those intuitions available to reason and intellect. Sometimes, the boundary between intuition and deductive reasoning is blurred as they both yield the same results. Moreover, intuitions can be combined to yield metaphysical or philosophical systems. Descartes applied ideal intuitions (e.g., reason) to his eidetic intuitions to yield his metaphysics. Husserl, Twardowki, even Bolzano did the same in developing the philosophical school of Phenomenology.

The a-priori nature of intuitions of the first and the third kind led thinkers, such as Adolf Lasson, to associate it with Mysticism. He called it an "intellectual vision" which leads to the "essence of things". Earlier philosophers and

theologians labeled the methodical application of intuitions - the "science of the ultimates". Of course, this misses the strong emotional content of mystical experiences.

Confucius talked about fulfilling and seeking one's "human nature" (or "ren") as "the Way". This nature is not the result of learning or deliberation. It is innate. It is intuitive and, in turn, produces additional, clear intuitions ("yong") as to right and wrong, productive and destructive, good and evil. The "operation of the natural law" requires that there be no rigid codex, but only constant change guided by the central and harmonious intuition of life.

II. **Philosophers on Intuition - An Overview**

IIA. ***Locke***

But are intuitions really a-priori - or do they develop in response to a relatively stable reality and in interaction with it? Would we have had intuitions in a chaotic, capricious, and utterly unpredictable and disordered universe? Do intuitions emerge to counter-balance surprises?

Locke thought that intuition is a learned and cumulative response to sensation. The assumption of innate ideas is unnecessary. The mind is like a blank sheet of paper, filled gradually by experience - by the sum total of observations of external objects and of internal "reflections" (i.e., operations of the mind). Ideas (i.e., what the mind perceives in itself or in immediate objects) are triggered by the qualities of objects.

But, despite himself, Locke was also reduced to ideal (innate) intuitions. According to Locke, a colour, for

instance, can be either an idea in the mind (i.e., ideal intuition) - or the quality of an object that causes this idea in the mind (i.e., that evokes the ideal intuition). Moreover, his "primary qualities" (qualities shared by all objects) come close to being eidetic intuitions.

Locke himself admits that there is no resemblance or correlation between the idea in the mind and the (secondary) qualities that provoked it. Berkeley demolished Locke's preposterous claim that there is such resemblance (or mapping) between PRIMARY qualities and the ideas that they provoke in the mind. It would seem therefore that Locke's "ideas in the mind" are in the mind irrespective and independent of the qualities that produce them. In other words, they are a-priori. Locke resorts to abstraction in order to repudiate it.

Locke himself talks about "intuitive knowledge". It is when the mind "perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other... the knowledge of our own being we have by intuition... the mind is presently filled with the clear light of it. It is on this intuition that depends all the certainty and evidence of all our knowledge... (Knowledge is the) perception of the connection of and agreement, or disagreement and repugnancy, of any of our ideas."

Knowledge is intuitive intellectual perception. Even when demonstrated (and few things, mainly ideas, can be intuited and demonstrated - relations within the physical realm cannot be grasped intuitively), each step in the demonstration is observed intuitionally. Locke's "sensitive knowledge" is also a form of intuition (known as "intuitive cognition" in the Middle Ages). It is the perceived certainty that there exist finite objects outside

us. The knowledge of one's existence is an intuition as well. But both these intuitions are judgmental and rely on probabilities.

IIB. ***Hume***

Hume denied the existence of innate ideas. According to him, all ideas are based either on sense impressions or on simpler ideas. But even Hume accepted that there are propositions known by the pure intellect (as opposed to propositions dependent on sensory input). These deal with the relations between ideas and they are (logically) necessarily true. Even though reason is used in order to prove them - they are independently true all the same because they merely reveal the meaning or information implicit in the definitions of their own terms. These propositions teach us nothing about the nature of things because they are, at bottom, self referential (equivalent to Kant's "analytic propositions").

IIC. ***Kant***

According to Kant, our senses acquaint us with the particulars of things and thus provide us with intuitions. The faculty of understanding provided us with useful taxonomies of particulars ("concepts"). Yet, concepts without intuitions were as empty and futile as intuitions without concepts. Perceptions ("phenomena") are the composite of the sensations caused by the perceived objects and the mind's reactions to such sensations ("form"). These reactions are the product of intuition.

IID. ***The Absolute Idealists***

Schelling suggested a featureless, undifferentiated, union of opposites as the Absolute Ideal. Intellectual intuition

entails such a union of opposites (subject and object) and, thus, is immersed and assimilated by the Absolute and becomes as featureless and undifferentiated as the Absolute is.

Objective Idealists claimed that we can know ultimate (spiritual) reality by intuition (or thought) independent of the senses (the mystical argument). The mediation of words and symbol systems only distorts the "signal" and inhibits the effective application of one's intuition to the attainment of real, immutable, knowledge.

IIE. ***The Phenomenologists***

The Phenomenological point of view is that every thing has an invariable and irreducible "essence" ("Eidos", as distinguished from contingent information about the thing). We can grasp this essence only intuitively ("Eidetic Reduction"). This process - of transcending the concrete and reaching for the essential - is independent of facts, concrete objects, or mental constructs. But it is not free from methodology ("free variation"), from factual knowledge, or from ideal intuitions. The Phenomenologist is forced to make the knowledge of facts his point of departure. He then applies a certain methodology (he varies the nature and specifications of the studied object to reveal its essence) which relies entirely on ideal intuitions (such as the rules of logic).

Phenomenology, in other words, is an Idealistic form of Rationalism. It applies reason to discover Platonic (Idealism) essences. Like Rationalism, it is not empirical (it is not based on sense data). Actually, it is anti-empirical - it "brackets" the concrete and the factual in its attempt to delve beyond appearances and into essences. It calls for the application of intuition (Anschauung) to discover

essential insights (Wesenseinsichten).

"Phenomenon" in Phenomenology is that which is known by consciousness and in it. Phenomenologists regarded intuition as a "pure", direct, and primitive way of reducing clutter in reality. It is immediate and the basis of a higher level perception. A philosophical system built on intuition would, perforce, be non speculative. Hence, Phenomenology's emphasis on the study of consciousness (and intuition) rather than on the study of (deceiving) reality. It is through "Wesensschau" (the intuition of essences) that one reaches the invariant nature of things (by applying free variation techniques).

Iraq War

It is the war of the sated against the famished, the obese against the emaciated, the affluent against the impoverished, the democracies against tyranny, perhaps Christianity against Islam and definitely the West against the Orient. It is the ultimate metaphor, replete with "mass destruction", "collateral damage", and the "will of the international community".

In this euphemistic Bedlam, Louis Althusser would have felt at home.

With the exception of Nietzsche, no other madman has contributed so much to human sanity as has Louis Althusser. He is mentioned twice in the Encyclopaedia Britannica merely as a teacher. Yet for two important decades (the 1960s and the 1970s), Althusser was at the eye of all the important cultural storms. He fathered quite a few of them.

Althusser observed that society consists of practices:

economic, political and ideological. He defines a practice as:

"Any process of transformation of a determinate product, affected by a determinate human labour, using determinate means (of production)."

The economic practice (the historically specific mode of production, currently capitalism) transforms raw materials to finished products deploying human labour and other means of production in interactive webs. The political practice does the same using social relations as raw materials.

Finally, ideology is the transformation of the way that a subject relates to his real-life conditions of existence. The very being and reproduction of the social base (not merely its expression) is dependent upon a social superstructure. The superstructure is "***relatively autonomous"*** and ideology has a central part in it.

America's social superstructure, for instance, is highly ideological. The elite regards itself as the global guardian and defender of liberal-democratic and capitalistic values (labeled "good") against alternative moral and thought systems (labeled "evil"). This self-assigned mission is suffused with belligerent religiosity in confluence with malignant forms of individualism (mutated to narcissism) and progress (turned materialism).

Althusser's conception of ideology is especially applicable to America's demonisation of Saddam Hussein (admittedly, not a tough job) and its subsequent attempt to justify violence as the only efficacious form of exorcism.

People relate to the conditions of existence through the practice of ideology. It smoothes over contradictions and

offers false (though seemingly true) solutions to real problems. Thus, ideology has a realistic attribute - and a dimension of representations (myths, concepts, ideas, images). There is harsh, conflicting reality - and the way that we represent it both to ourselves and to others.

"This applies to both dominant and subordinate groups and classes; ideologies do not just convince oppressed groups and classes that all is well (more or less) with the world, they also reassure dominant groups and classes that what others might call exploitation and oppression is in fact something quite different: the operations and processes of universal necessity"
(Guide to Modern Literary and Cultural Theorists, ed. Stuart Sim, Prentice-Hall, 1995, p. 10)

To achieve the above, ideology must not be seen to err or, worse, remain speechless. It, therefore, confronts and poses (to itself) only questions it can answer. This way, it is confined to a fabulous, fantastic, contradiction-free domain. It ignores other types of queries altogether. It is a closed, solipsistic, autistic, self-consistent, and intolerant thought system. Hence the United States' adamant refusal to countenance any alternative points of view or solutions to the Iraqi crisis.

Althusser introduced the concept of "The Problematic":

"The objective internal reference ... the system of questions commanding the answers given."

The Problematic determines which issues, questions and answers are part of the narrative - and which are overlooked. It is a structure of theory (ideology), a framework and the repertoire of discourses which - ultimately - yield a text or a practice. All the rest is

excluded.

It is, therefore, clear that what is omitted is of no less importance than what is included in a text, or a practice. What the United States declines or neglects to incorporate in the resolutions of the Security Council, in its own statements, in the debate with its allies and, ultimately, in its decisions and actions, teaches us about America and its motives, its worldview and cultural-social milieu, its past and present, its mentality and its practices. We learn from its omissions as much as we do from its commissions.

The problematic of a text reveals its historical context ("moment") by incorporating both inclusions and omissions, presences and absences, the overt and the hidden, the carefully included and the deliberately excluded. The problematic of the text generates answers to posed questions - and "defective" answers to excluded ones.

Althusser contrasts the manifest text with a latent text which is the result of the lapses, distortions, silences and absences in the manifest text. The latent text is the "diary of the struggle" of the un-posed question to be posed and answered.

Such a deconstructive or symptomatic reading of recent American texts reveals, as in a palimpsest, layers of 19th century-like colonialist, mercantilist and even imperialist mores and values: "the white man's burden", the mission of civilizing and liberating lesser nation, the implicit right to manage the natural resources of other polities and to benefit from them, and other eerie echoes of Napoleonic "Old Europe".

But ideology does not consist merely of texts.

"(It is a) lived, material practice - rituals, customs, patterns of behavior, ways of thinking taking practical form - reproduced through the practices and productions of the Ideological State Apparatuses (ISAs): education, organized religion, the family, organized politics, the media, the cultural industries..." (ibid, p.12)

Althusser said that ***"All ideology has the function (which defines it) of 'constructing' concrete individuals as subjects"***.

Subjects to what? The answer is: to the material practices of the ideology, such as consumption, or warfare. This (the creation of subjects) is done by acts of "hailing" or "interpellation". These attract attention (hailing) and force the individuals to generate meaning (interpretation) and, thus, make the subjects partake in the practice.

The application of this framework is equally revealing when one tackles not only the American administration but also the uniformly "patriotic" (read: nationalistic) media in the United States.

The press uses self-censored "news", "commentary" and outright propaganda to transform individuals to subjects, i.e. to supporters of the war. It interpellates them and limits them to a specific discourse (of armed conflict). The barrage of soundbites, slogans, clips, edited and breaking news and carefully selected commentary and advocacy attract attention, force people to infuse the information with meaning and, consequently, to conform and participate in the practice (e.g., support the war, or fight in it).

The explicit and implicit messages are: "People like you - liberal, courageous, selfless, sharp, resilient,

entrepreneurial, just, patriotic, and magnanimous - (buy this or do that)"; "People like you go to war, selflessly, to defend not only their nearest and dearest but an ungrateful world as well"; "People like you do not allow a monster like Saddam Hussein to prevail"; "People like you are missionaries, bringing democracy and a better life to all corners of the globe". "People like you are clever and won't wait till it is too late and Saddam possesses or, worse, uses weapons of mass destruction"; "People like you contrast with others (the French, the Germans) who ungratefully shirk their responsibilities and wallow in cowardice."

The reader / viewer is interpellated both as an individual ("you") and as a member of a group ("people like you..."). S/he occupies the empty (imaginary) slot, represented by the "you" in the media campaign. It is a form of mass flattery. The media caters to the narcissistic impulse to believe that it addresses us personally, as unique individuals. Thus, the reader or viewer is transformed into the subject of (and is being subjected to) the material practice of the ideology (war, in this case).

Still, not all is lost. Althusser refrains from tackling the possibilities of ideological failure, conflict, struggle, or resistance. His own problematic may not have allowed him to respond to these two deceptively simple questions:

1. What is the ultimate goal and purpose of the ideological practice beyond self-perpetuation?

2. What happens in a pluralistic environment rich in competing ideologies and, thus, in contradictory interpellations?

There are incompatible ideological strands even in the

strictest authoritarian regimes, let alone in the Western democracies. Currently, IASs within the same social formation in the USA are offering competing ideologies: political parties, the Church, the family, the military, the media, the intelligentsia and the bureaucracy completely fail to agree and cohere around a single doctrine. As far as the Iraqi conflict goes, subjects have been exposed to parallel and mutually-exclusive interpellations since day one.

Moreover, as opposed to Althusser's narrow and paranoid view, interpellation is rarely about converting subjects to a specific - and invariably transient - ideological practice. It is concerned mostly with the establishment of a consensual space in which opinions, information, goods and services can be exchanged subject to agreed rules.

Interpellation, therefore, is about convincing people not to opt out, not to tune out, not to drop out - and not to rebel. When it encourages subjects to act - for instance, to consume, or to support a war, or to fight in it, or to vote - it does so in order to preserve the social treaty, the social order and society at large.

The business concern, the church, the political party, the family, the media, the culture industries, the educational system, the military, the civil service - are all interested in securing influence over, or at least access to, potential subjects. Thus, interpellation is used mainly to safeguard future ability to interpellate. Its ultimate aim is to preserve the cohesion of the pool of subjects and to augment it with new potential ones.

In other words, interpellation can never be successfully coercive, lest it alienates present and future subjects. The Bush administration and its supporters can interpellate

Americans and people around the world and hope to move them to adopt their ideology and its praxis. But they cannot force anyone to do so because if they do, they are no different to Saddam and, consequently, they undermine the very ideology that caused them to interpellate in the first place.

How ironic that Althusser, the brilliant thinker, did not grasp the cyclical nature of his own teachings (that ideologies interpellate in order to be able to interpellate in future). This oversight and his dogmatic approach (insisting that ideologies never fail) doomed his otherwise challenging observations to obscurity. The hope that resistance is not futile and that even the most consummate and powerful interpellators are not above the rules - has thus revived.

Islam and Liberalism

Islam is not merely a religion. It is also - and perhaps, foremost - a state ideology. It is all-pervasive and missionary. It permeates every aspect of social cooperation and culture. It is an organizing principle, a narrative, a philosophy, a value system, and a vade mecum. In this it resembles Confucianism and, to some extent, Hinduism.

Judaism and its offspring, Christianity - though heavily involved in political affairs throughout the ages - have kept their dignified distance from such carnal matters. These are religions of "heaven" as opposed to Islam, a practical, pragmatic, hands-on, ubiquitous, "earthly" creed.

Secular religions - Democratic Liberalism, Communism, Fascism, Nazism, Socialism and other isms - are more

akin to Islam than to, let's say, Buddhism. They are universal, prescriptive, and total. They provide recipes, rules, and norms regarding every aspect of existence - individual, social, cultural, moral, economic, political, military, and philosophical.

At the end of the Cold War, Democratic Liberalism stood triumphant over the fresh graves of its ideological opponents. They have all been eradicated. This precipitated Fukuyama's premature diagnosis (the End of History). But one state ideology, one bitter rival, one implacable opponent, one contestant for world domination, one antithesis remained - Islam.

Militant Islam is, therefore, not a cancerous mutation of "true" Islam. On the contrary, it is the purest expression of its nature as an imperialistic religion which demands unmitigated obedience from its followers and regards all infidels as both inferior and avowed enemies.

The same can be said about Democratic Liberalism. Like Islam, it does not hesitate to exercise force, is missionary, colonizing, and regards itself as a monopolist of the "truth" and of "universal values". Its antagonists are invariably portrayed as depraved, primitive, and below par.

Such mutually exclusive claims were bound to lead to an all-out conflict sooner or later. The "War on Terrorism" is only the latest round in a millennium-old war between Islam and other "world systems".

Such interpretation of recent events enrages many. They demand to know (often in harsh tones):

- Don't you see any difference between terrorists who murder civilians and regular armies in battle?

Both regulars and irregulars slaughter civilians as a matter of course. "Collateral damage" is the main outcome of modern, total warfare - and of low intensity conflicts alike.

There is a major difference between terrorists and soldiers, though:

Terrorists make carnage of noncombatants their main tactic - while regular armies rarely do. Such conduct is criminal and deplorable, whoever the perpetrator.

But what about the killing of combatants in battle? How should we judge the slaying of soldiers by terrorists in combat?

Modern nation-states enshrined the self-appropriated monopoly on violence in their constitutions and ordinances (and in international law). Only state organs - the army, the police - are permitted to kill, torture, and incarcerate.

Terrorists are trust-busters: they, too, want to kill, torture, and incarcerate. They seek to break the death cartel of governments by joining its ranks.

Thus, when a soldier kills terrorists and ("inadvertently") civilians (as "collateral damage") - it is considered above board. But when the terrorist decimates the very same soldier - he is decried as an outlaw.

Moreover, the misbehavior of some countries - not least the United States - led to the legitimization of terrorism. Often nation-states use terrorist organizations to further their geopolitical goals. When this happens, erstwhile outcasts become "freedom fighters", pariahs become allies, murderers are recast as sensitive souls struggling

for equal rights. This contributes to the blurring of ethical percepts and the blunting of moral judgment.

- Would you rather live under sharia law? Don't you find Liberal Democracy vastly superior to Islam?

Superior, no. Different - of course. Having been born and raised in the West, I naturally prefer its standards to Islam's. Had I been born in a Muslim country, I would have probably found the West and its principles perverted and obnoxious.

The question is meaningless because it presupposes the existence of an objective, universal, culture and period independent set of preferences. Luckily, there is no such thing.

- In this clash of civilization whose side are you on?

This is not a clash of civilizations. Western culture is inextricably intertwined with Islamic knowledge, teachings, and philosophy. Christian fundamentalists have more in common with Muslim militants than with East Coast or French intellectuals.

Muslims have always been the West's most defining Other. Islamic existence and "gaze" helped to mold the West's emerging identity as a historical construct. From Spain to India, the incessant friction and fertilizing interactions with Islam shaped Western values, beliefs, doctrines, moral tenets, political and military institutions, arts, and sciences.

This war is about world domination. Two incompatible thought and value systems compete for the hearts and minds (and purchasing power) of the denizens of the global village. Like in the Westerns, by high noon, either

one of them is left standing - or both will have perished.

Where does my loyalty reside?

I am a Westerner, so I hope the West wins this confrontation. But, in the process, it would be good if it were humbled, deconstructed, and reconstructed. One beneficial outcome of this conflict is the demise of the superpower system - a relic of days bygone and best forgotten. I fully believe and trust that in militant Islam, the United States has found its match.

In other words, I regard militant Islam as a catalyst that will hasten the transformation of the global power structure from unipolar to multipolar. It may also commute the United States itself. It will definitely rejuvenate religious thought and cultural discourse. All wars do.

Aren't you overdoing it? After all, al-Qaida is just a bunch of terrorists on the run!

The West is not fighting al-Qaida. It is facing down the circumstances and ideas that gave rise to al-Qaida. Conditions - such as poverty, ignorance, disease, oppression, and xenophobic superstitions - are difficult to change or to reverse. Ideas are impossible to suppress. Already, militant Islam is far more widespread and established that any Western government would care to admit.

History shows that all terrorist groupings ultimately join the mainstream. Many countries - from Israel to Ireland and from East Timor to Nicaragua - are governed by former terrorists. Terrorism enhances social upward mobility and fosters the redistribution of wealth and resources from the haves to haves not.

Al-Qaida, despite its ominous portrayal in the Western press - is no exception. It, too, will succumb, in due time, to the twin lures of power and money. Nihilistic and decentralized as it is - its express goals are the rule of Islam and equitable economic development. It is bound to get its way in some countries.

The world of the future will be truly pluralistic. The proselytizing zeal of Liberal Democracy and Capitalism has rendered them illiberal and intolerant. The West must accept the fact that a sizable chunk of humanity does not regard materialism, individualism, liberalism, progress, and democracy - at least in their Western guises - as universal or desirable.

Live and let live (and live and let die) must replace the West's malignant optimism and intellectual and spiritual arrogance.

Edward K. Thompson, the managing editor of "Life" from 1949 to 1961, once wrote:

"'Life' must be curious, alert, erudite and moral, but it must achieve this without being holier-than-thou, a cynic, a know-it-all or a Peeping Tom."

The West has grossly and thoroughly violated Thompson's edict. In its oft-interrupted intercourse with these forsaken regions of the globe, it has acted, alternately, as a Peeping Tom, a cynic and a know it all. It has invariably behaved as if it were holier-than-thou. In an unmitigated and fantastic succession of blunders, miscalculations, vain promises, unkept threats and unkempt diplomats - it has driven the world to the verge of war and the regions it "adopted" to the threshold of economic and social upheaval.

Enamored with the new ideology of free marketry cum democracy, the West first assumed the role of the omniscient. It designed ingenious models, devised foolproof laws, imposed fail-safe institutions and strongly "recommended" measures. Its representatives, the tribunes of the West, ruled the plebeian East with determination rarely equaled by skill or knowledge.

Velvet hands couched in iron gloves, ignorance disguised by economic newspeak, geostrategic interests masquerading as forms of government, characterized their dealings with the natives. Preaching and beseeching from ever higher pulpits, they poured opprobrium and sweet delusions on the eagerly duped, naive, bewildered masses.

The deceit was evident to the indigenous cynics - but it was the failure that dissuaded them and others besides. The West lost its former colonies not when it lied egregiously, not when it pretended to know for sure when it surely did not know, not when it manipulated and coaxed and coerced - but when it failed.

To the peoples of these regions, the king was fully dressed. It was not a little child but an enormous debacle that exposed his nudity. In its presumptuousness and pretentiousness, feigned surety and vain clichés, imported economic models and exported cheap raw materials - the West succeeded to demolish beyond reconstruction whole economies, to ravage communities, to wreak ruination upon the centuries-old social fabric, woven diligently by generations.

It brought crime and drugs and mayhem but gave very little in return, only a horizon beclouded and thundering with vacuous eloquence. As a result, while tottering regional governments still pay lip service to the values of

Capitalism, the masses are enraged and restless and rebellious and baleful and anti-Western to the core.

The disenchanted were not likely to acquiesce for long - not only with the West's neo-colonialism but also with its incompetence and inaptitude, with the nonchalant experimentation that it imposed upon them and with the abyss between its proclamations and its performance.

Throughout this time, the envoys of the West - its mediocre politicians, its insatiably ruthless media, its obese tourists, its illiterate soldiers, and its armchair economists - continue to play the role of God, wreaking greater havoc than even the original.

While confessing to omniscience (in breach of every tradition scientific and religious), they also developed a kind of world weary, unshaven cynicism interlaced with fascination at the depths plumbed by the locals' immorality and amorality.

The jet-set Peeping Toms reside in five star hotels (or luxurious apartments) overlooking the communist, or Middle-Eastern, or African shantytowns. They drive utility vehicles to the shabby offices of the native bureaucrats and dine in $100 per meal restaurants ("it's so cheap here").

In between kebab and hummus they bemoan and grieve the corruption and nepotism and cronyism ("I simply love their ethnic food, but they are so..."). They mourn the autochthonous inability to act decisively, to cut red tape, to manufacture quality, to open to the world, to be less xenophobic (said while casting a disdainful glance at the native waiter).

To them it looks like an ancient force of nature and,

therefore, an inevitability - hence their cynicism. Mostly provincial people with horizons limited by consumption and by wealth, these heralds of the West adopt cynicism as shorthand for cosmopolitanism. They erroneously believe that feigned sarcasm lends them an air of ruggedness and rich experience and the virile aroma of decadent erudition. Yet all it does is make them obnoxious and even more repellent to the residents than they already were.

Ever the preachers, the West - both Europeans and Americans - uphold themselves as role models of virtue to be emulated, as points of reference, almost inhuman or superhuman in their taming of the vices, avarice up front.

Yet the chaos and corruption in their own homes is broadcast live, day in and day out, into the cubicles inhabited by the very people they seek to so transform. And they conspire and collaborate in all manner of venality and crime and scam and rigged elections in all the countries they put the gospel to.

In trying to put an end to history, they seem to have provoked another round of it - more vicious, more enduring, more traumatic than before. That the West is paying the price for its mistakes I have no doubt. For isn't it a part and parcel of its teachings that everything has a price and that there is always a time of reckoning?

Just War (Doctrine)

In an age of terrorism, guerilla and total warfare the medieval doctrine of Just War needs to be re-defined. Moreover, issues of legitimacy, efficacy and morality should not be confused. Legitimacy is conferred by institutions. Not all morally justified wars are, therefore,

automatically legitimate. Frequently the efficient execution of a battle plan involves immoral or even illegal acts.

As international law evolves beyond the ancient percepts of sovereignty, it should incorporate new thinking about pre-emptive strikes, human rights violations as casus belli and the role and standing of international organizations, insurgents and liberation movements.

Yet, inevitably, what constitutes "justice" depends heavily on the cultural and societal contexts, narratives, mores, and values of the disputants. Thus, one cannot answer the deceivingly simple question: "Is this war a just war?" - without first asking: "According to whom? In which context? By which criteria? Based on what values? In which period in history and where?"

Being members of Western Civilization, whether by choice or by default, our understanding of what constitutes a just war is crucially founded on our shifting perceptions of the West.

Imagine a village of 220 inhabitants. It has one heavily armed police constable flanked by two lightly equipped assistants. The hamlet is beset by a bunch of ruffians who molest their own families and, at times, violently lash out at their neighbors. These delinquents mock the authorities and ignore their decisions and decrees.

Yet, the village council - the source of legitimacy - refuses to authorize the constable to apprehend the villains and dispose of them, by force of arms if need be. The elders see no imminent or present danger to their charges and are afraid of potential escalation whose evil outcomes could far outweigh anything the felons can achieve.

Incensed by this laxity, the constable - backed only by some of the inhabitants - breaks into the home of one of the more egregious thugs and expels or kills him. He claims to have acted preemptively and in self-defense, as the criminal, long in defiance of the law, was planning to attack its representatives.

Was the constable right in acting the way he did?

On the one hand, he may have saved lives and prevented a conflagration whose consequences no one could predict. On the other hand, by ignoring the edicts of the village council and the expressed will of many of the denizens, he has placed himself above the law, as its absolute interpreter and enforcer.

What is the greater danger? Turning a blind eye to the exploits of outlaws and outcasts, thus rendering them ever more daring and insolent - or acting unilaterally to counter such pariahs, thus undermining the communal legal foundation and, possibly, leading to a chaotic situation of "might is right"? In other words, when ethics and expedience conflict with legality - which should prevail?

Enter the medieval doctrine of "Just War" (justum bellum, or, more precisely jus ad bellum), propounded by Saint Augustine of Hippo (fifth century AD), Saint Thomas Aquinas (1225-1274) in his "Summa Theologicae", Francisco de Vitoria (1548-1617), Francisco Suarez (1548-1617), Hugo Grotius (1583-1645) in his influential tome "Jure Belli ac Pacis" ("On Rights of War and Peace", 1625), Samuel Pufendorf (1632-1704), Christian Wolff (1679-1754), and Emerich de Vattel (1714-1767).

Modern thinkers include Michael Walzer in "Just and Unjust Wars" (1977), Barrie Paskins and Michael Dockrill

in "The Ethics of War" (1979), Richard Norman in "Ethics, Killing, and War" (1995), Thomas Nagel in "War and Massacre", and Elizabeth Anscombe in "War and Murder".

According to the Catholic Church's rendition of this theory, set forth by Bishop Wilton D. Gregory of the United States Conference of Catholic Bishops in his Letter to President Bush on Iraq, dated September 13, 2002, going to war is justified if these conditions are met:

"The damage inflicted by the aggressor on the nation or community of nations [is] lasting, grave, and certain; all other means of putting an end to it must have been shown to be impractical or ineffective; there must be serious prospects of success; the use of arms must not produce evils and disorders graver than the evil to be eliminated."

A just war is, therefore, a last resort, all other peaceful conflict resolution options having been exhausted.

The Internet Encyclopedia of Philosophy sums up the doctrine thus:

"The principles of the justice of war are commonly held to be:

1. Having just cause (especially and, according to the United Nations Charter, exclusively, self-defense);

2. Being (formally) declared by a proper authority;

3. Possessing a right intention;

4. Having a reasonable chance of success;

5. The end being proportional to the means used."

Yet, the evolution of warfare - the invention of nuclear weapons, the propagation of total war, the ubiquity of guerrilla and national liberation movements, the emergence of global, border-hopping terrorist organizations, of totalitarian regimes, and rogue or failed states - requires these principles to be modified by adding these tenets:

6. That the declaring authority is a lawfully and democratically elected government.

7. That the declaration of war reflects the popular will.
   (Extension of 3) The right intention is to act in just cause.
   (Extension of 4) ... or a reasonable chance of avoiding an annihilating defeat.
   (Extension of 5) That the outcomes of war are preferable to the outcomes of the preservation of peace.

Still, the doctrine of just war, conceived in Europe in eras past, is fraying at the edges. Rights and corresponding duties are ill-defined or mismatched. What is legal is not always moral and what is legitimate is not invariably legal. Political realism and quasi-religious idealism sit uncomfortably within the same conceptual framework. Norms are vague and debatable while customary law is only partially subsumed in the tradition (i.e., in treaties, conventions and other instruments, as well in the actual conduct of states).

The most contentious issue is, of course, what constitutes "just cause". Self-defense, in its narrowest sense (reaction to direct and overwhelming armed aggression), is a justified casus belli. But what about the use of force to

(deontologically, consequentially, or ethically):

1. Prevent or ameliorate a slow-motion or permanent humanitarian crisis;

2. Preempt a clear and present danger of aggression ("anticipatory or preemptive self-defense" against what Grotius called "immediate danger");

3. Secure a safe environment for urgent and indispensable humanitarian relief operations;

4. Restore democracy in the attacked state ("regime change");

5. Restore public order in the attacked state;

6. Prevent human rights violations or crimes against humanity or violations of international law by the attacked state;

7. Keep the peace ("peacekeeping operations") and enforce compliance with international or bilateral treaties between the aggressor and the attacked state or the attacked state and a third party;

8. Suppress armed infiltration, indirect aggression, or civil strife aided and abetted by the attacked state;

9. Honor one's obligations to frameworks and treaties of collective self-defense;

10. Protect one's citizens or the citizens of a third party inside the attacked state;

11. Protect one's property or assets owned by a third party inside the attacked state;

12. Respond to an invitation by the authorities of the attacked state - and with their expressed consent - to militarily intervene within the territory of the attacked state;

13. React to offenses against the nation's honor or its economy.

Unless these issues are resolved and codified, the entire edifice of international law - and, more specifically, the law of war - is in danger of crumbling. The contemporary multilateral regime proved inadequate and unable to effectively tackle genocide (Rwanda, Bosnia), terror (in Africa, Central Asia, and the Middle East), weapons of mass destruction (Iraq, India, Israel, Pakistan, North Korea), and tyranny (in dozens of members of the United Nations).

This feebleness inevitably led to the resurgence of "might is right" unilateralism, as practiced, for instance, by the United States in places as diverse as Grenada and Iraq. This pernicious and ominous phenomenon is coupled with contempt towards and suspicion of international organizations, treaties, institutions, undertakings, and the prevailing consensual order.

In a unipolar world, reliant on a single superpower for its security, the abrogation of the rules of the game could lead to chaotic and lethal anarchy with a multitude of "rebellions" against the emergent American Empire. International law - the formalism of "natural law" - is only one of many competing universalist and missionary value systems. Militant Islam is another. The West must adopt the former to counter the latter.

Justice, Distributive

The public outcry against executive pay and compensation followed disclosures of insider trading, double dealing, and outright fraud. But even honest and productive entrepreneurs often earn more money in one year than Albert Einstein did in his entire life. This strikes many - especially academics - as unfair. Surely Einstein's contributions to human knowledge and welfare far exceed anything ever accomplished by sundry businessmen? Fortunately, this discrepancy is cause for constructive jealousy, emulation, and imitation. It can, however, lead to an orgy of destructive and self-ruinous envy.

Entrepreneurs recombine natural and human resources in novel ways. They do so to respond to forecasts of future needs, or to observations of failures and shortcomings of current products or services. Entrepreneurs are professional - though usually intuitive - futurologists. This is a valuable service and it is financed by systematic risk takers, such as venture capitalists. Surely they all deserve compensation for their efforts and the hazards they assume?

Exclusive ownership is the most ancient type of such remuneration. First movers, entrepreneurs, risk takers, owners of the wealth they generated, exploiters of resources - are allowed to exclude others from owning or exploiting the same things. Mineral concessions, patents, copyright, trademarks - are all forms of monopoly ownership. What moral right to exclude others is gained from being the first?

Nozick advanced Locke's Proviso. An exclusive ownership of property is just only if "enough and as good is left in common for others". If it does not worsen other people's lot, exclusivity is morally permissible. It can be argued, though, that all modes of exclusive ownership

aggravate other people's situation. As far as everyone, bar the entrepreneur, are concerned, exclusivity also prevents a more advantageous distribution of income and wealth.

Exclusive ownership reflects real-life irreversibility. A first mover has the advantage of excess information and of irreversibly invested work, time, and effort. Economic enterprise is subject to information asymmetry: we know nothing about the future and everything about the past. This asymmetry is known as "investment risk". Society compensates the entrepreneur with one type of asymmetry - exclusive ownership - for assuming another, the investment risk.

One way of looking at it is that all others are worse off by the amount of profits and rents accruing to owner-entrepreneurs. Profits and rents reflect an intrinsic inefficiency. Another is to recall that ownership is the result of adding value to the world. It is only reasonable to expect it to yield to the entrepreneur at least this value added now and in the future.

In a "Theory of Justice" (published 1971, p. 302), John Rawls described an ideal society thus:

"(1) Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all. (2) Social and economic inequalities are to be arranged so that they are both: (a) to the greatest benefit of the least advantaged, consistent with the just savings principle, and (b) attached to offices and positions open to all under conditions of fair equality of opportunity."

It all harks back to scarcity of resources - land, money, raw materials, manpower, creative brains. Those who can

afford to do so, hoard resources to offset anxiety regarding future uncertainty. Others wallow in paucity. The distribution of means is thus skewed. "Distributive justice" deals with the just allocation of scarce resources.

Yet, even the basic terminology is somewhat fuzzy. What constitutes a resource? what is meant by allocation? Who should allocate resources - Adam Smith's "invisible hand", the government, the consumer, or business? Should it reflect differences in power, in intelligence, in knowledge, or in heredity? Should resource allocation be subject to a principle of entitlement? Is it reasonable to demand that it be just - or merely efficient? Are justice and efficiency antonyms?

Justice is concerned with equal access to opportunities. Equal access does not guarantee equal outcomes, invariably determined by idiosyncrasies and differences between people. Access leveraged by the application of natural or acquired capacities - translates into accrued wealth. Disparities in these capacities lead to discrepancies in accrued wealth.

The doctrine of equal access is founded on the equivalence of Men. That all men are created equal and deserve the same respect and, therefore, equal treatment is not self evident. European aristocracy well into this century would have probably found this notion abhorrent. Jose Ortega Y Gasset, writing in the 1930's, preached that access to educational and economic opportunities should be premised on one's lineage, up bringing, wealth, and social responsibilities.

A succession of societies and cultures discriminated against the ignorant, criminals, atheists, females, homosexuals, members of ethnic, religious, or racial

groups, the old, the immigrant, and the poor. Communism - ostensibly a strict egalitarian idea - foundered because it failed to reconcile strict equality with economic and psychological realities within an impatient timetable.

Philosophers tried to specify a "bundle" or "package" of goods, services, and intangibles (like information, or skills, or knowledge). Justice - though not necessarily happiness - is when everyone possesses an identical bundle. Happiness - though not necessarily justice - is when each one of us possesses a "bundle" which reflects his or her preferences, priorities, and predilections. None of us will be too happy with a standardized bundle, selected by a committee of philosophers - or bureaucrats, as was the case under communism.

The market allows for the exchange of goods and services between holders of identical bundles. If I seek books, but detest oranges - I can swap them with someone in return for his books. That way both of us are rendered better off than under the strict egalitarian version.

Still, there is no guarantee that I will find my exact match - a person who is interested in swapping his books for my oranges. Illiquid, small, or imperfect markets thus inhibit the scope of these exchanges. Additionally, exchange participants have to agree on an index: how many books for how many oranges? This is the price of oranges in terms of books.

Money - the obvious "index" - does not solve this problem, merely simplifies it and facilitates exchanges. It does not eliminate the necessity to negotiate an "exchange rate". It does not prevent market failures. In other words: money is not an index. It is merely a medium of exchange and a store of value. The index - as expressed in terms of

money - is the underlying agreement regarding the values of resources in terms of other resources (i.e., their relative values).

The market - and the price mechanism - increase happiness and welfare by allowing people to alter the composition of their bundles. The invisible hand is just and benevolent. But money is imperfect. The aforementioned Rawles demonstrated (1971), that we need to combine money with other measures in order to place a value on intangibles.

The prevailing market theories postulate that everyone has the same resources at some initial point (the "starting gate"). It is up to them to deploy these endowments and, thus, to ravage or increase their wealth. While the initial distribution is equal - the end distribution depends on how wisely - or imprudently - the initial distribution was used.

Egalitarian thinkers proposed to equate everyone's income in each time frame (e.g., annually). But identical incomes do not automatically yield the same accrued wealth. The latter depends on how the income is used - saved, invested, or squandered. Relative disparities of wealth are bound to emerge, regardless of the nature of income distribution.

Some say that excess wealth should be confiscated and redistributed. Progressive taxation and the welfare state aim to secure this outcome. Redistributive mechanisms reset the "wealth clock" periodically (at the end of every month, or fiscal year). In many countries, the law dictates which portion of one's income must be saved and, by implication, how much can be consumed. This conflicts with basic rights like the freedom to make economic choices.

The legalized expropriation of income (i.e., taxes) is morally dubious. Anti-tax movements have sprung all over the world and their philosophy permeates the ideology of political parties in many countries, not least the USA. Taxes are punitive: they penalize enterprise, success, entrepreneurship, foresight, and risk assumption. Welfare, on the other hand, rewards dependence and parasitism.

According to Rawles' Difference Principle, all tenets of justice are either redistributive or retributive. This ignores non-economic activities and human inherent variance. Moreover, conflict and inequality are the engines of growth and innovation - which mostly benefit the least advantaged in the long run. Experience shows that unmitigated equality results in atrophy, corruption and stagnation. Thermodynamics teaches us that life and motion are engendered by an irregular distribution of energy. Entropy - an even distribution of energy - equals death and stasis.

What about the disadvantaged and challenged - the mentally retarded, the mentally insane, the paralyzed, the chronically ill? For that matter, what about the less talented, less skilled, less daring? Dworkin (1981) proposed a compensation scheme. He suggested a model of fair distribution in which every person is given the same purchasing power and uses it to bid, in a fair auction, for resources that best fit that person's life plan, goals and preferences.

Having thus acquired these resources, we are then permitted to use them as we see fit. Obviously, we end up with disparate economic results. But we cannot complain - we were given the same purchasing power and the freedom to bid for a bundle of our choice.

Dworkin assumes that prior to the hypothetical auction, people are unaware of their own natural endowments but are willing and able to insure against being naturally disadvantaged. Their payments create an insurance pool to compensate the less fortunate for their misfortune.

This, of course, is highly unrealistic. We are usually very much aware of natural endowments and liabilities - both ours and others'. Therefore, the demand for such insurance is not universal, nor uniform. Some of us badly need and want it - others not at all. It is morally acceptable to let willing buyers and sellers to trade in such coverage (e.g., by offering charity or alms) - but may be immoral to make it compulsory.

Most of the modern welfare programs are involuntary Dworkin schemes. Worse yet, they often measure differences in natural endowments arbitrarily, compensate for lack of acquired skills, and discriminate between types of endowments in accordance with cultural biases and fads.

Libertarians limit themselves to ensuring a level playing field of just exchanges, where just actions always result in just outcomes. Justice is not dependent on a particular distribution pattern, whether as a starting point, or as an outcome. Robert Nozick "Entitlement Theory" proposed in 1974 is based on this approach.

That the market is wiser than any of its participants is a pillar of the philosophy of capitalism. In its pure form, the theory claims that markets yield patterns of merited distribution - i.e., reward and punish justly. Capitalism generate just deserts. Market failures - for instance, in the provision of public goods - should be tackled by governments. But a just distribution of income and wealth

does not constitute a market failure and, therefore, should not be tampered with.

K

Knowledge (and Power)

"Knowledge is Power" goes the old German adage. But power, as any schoolboy knows, always has negative and positive sides to it. Information exhibits the same duality: properly provided, it is a positive power of unequalled strength. Improperly disseminated and presented, it is nothing short of destructive. The management of the structure, content, provision and dissemination of information is, therefore, of paramount importance to a nation, especially if it is in its infancy (as an independent state).

Information has four dimensions and five axes of dissemination, some vertical and some horizontal.

The four dimensions are:

0.***Structure*** – information can come in various physical forms and poured into different kinds of vessels and carriers. It can be continuous or segmented, cyclical (periodic) or punctuated, repetitive or new, etc. The structure often determines what of the information (if at all) will be remembered and how. It encompasses not only the mode of presentation, but also the modules and the rules of interaction between them (the hermeneutic principles, the rules of structural interpretation, which is the result of spatial, syntactic and grammatical conjunction).

1. ***Content*** – This incorporates both ontological and epistemological elements. In other words: both "hard" data, which should, in principle, be

verifiable through the employment of objective, scientific, methods – and "soft" data, the interpretation offered with the hard data. The soft data is a derivative of a "message", in the broader sense of the term. A message comprises both world-view (theory) and an action and direction-inducing element.

1. ***Provision*** **–** The intentional input of structured content into information channels. The timing of this action, the quantities of data fed into the channels, their qualities – all are part of the equation of provision.

1. ***Dissemination*** **–** More commonly known as media or information channels. The channels which bridge between the information providers and the information consumers. Some channels are merely technical and then the relevant things to discuss would be technical: bandwidth, noise to signal ratios and the like. Other channels are metaphorical and then the relevant determinants would be their effectiveness in conveying content to targeted consumers.

In the economic realm, there are five important axes of dissemination:

0.***From Government to the Market*** – the Market here being the "Hidden Hand", the mechanism which allocates resources in adherence to market signals (for instance, in accordance with prices). The Government intervenes to correct market failures, or to influence the allocation of resources in favour or against the interests of a defined group of people. The more transparent and accountable the actions of the Government, the less distortion in the

allocation of resources and the less resulting inefficiency. The Government should declare its intentions and actions in advance whenever possible, then it should act through public, open tenders, report often to regulatory and legislative bodies and to the public and so on. The more information provided by this major economic player (the most dominant in most countries) – the more smoothly and efficaciously the Market will operate. The converse, unfortunately, is also true. The less open the government, the more latent its intents, the more shadowy its operations – the more cumbersome the bureaucracy, the less functioning the market.

1. ***From Government to the Firms*** – The same principles that apply to the desirable interaction between Government and Market, apply here. The Government should disseminate information to firms in its territory (and out of it) accurately, equitably and speedily. Any delay or distortion in the information, or preference of one recipient over another – will thwart the efficient allocation of economic resources.

1. ***From Government to the World*** – The "World" here being multilateral institutions, foreign governments, foreign investors, foreign competitors and the economic players in general providing that they are outside the territory of the information disseminating Government. Again, any delay, or abstention in the dissemination of information as well as its distortion (disinformation and misinformation) will result in economic outcomes worse that could have been achieved by a free, prompt, precise and equitable (=equally available) dissemination of said

information. This is true even where commercial secrets are involved! It has been proven time and again that when commercial information is kept secret – the firm (or Government) that keeps it hidden is HARMED. The most famous examples are Apple (which kept its operating system a well-guarded secret) and IBM (which did not), Microsoft (which kept its operating system open to developers of software) and other software companies (which did not). Recently, Netscape has decided to provide its source code (the most important commercial secret of any software company) free of charge to application developers. Synergy based on openness seemed to have won over old habits. A free, unhampered, unbiased flow of information is a major point of attraction to foreign investors and a brawny point with the likes of the IMF and the World Bank. The former, for instance, lends money more easily to countries, which maintain a reasonably reliable outflow of national statistics.

1. ***From Firms to the World*** – The virtues of corporate transparency and of the application of the properly revealing International Accounting Standards (IAS, GAAP, or others) need no evidencing. Today, it is virtually impossible to raise money, to export, to import, to form joint ventures, to obtain credits, or to otherwise collaborate internationally without the existence of full, unmitigated disclosure. The modern firm (if it wishes to interact globally) must open itself up completely and provide timely, full and accurate information to all. This is a legal must for public and listed firms the world over (though standards

vary). Transparent accounting practices, clear ownership structure, available track record and historical performance records – are sine qua non in today's financing world.

1. ***From Firms to Firms*** – This is really a subset of the previous axis of dissemination. Its distinction is that while the former is concerned with multilateral, international interactions – this axis is more inwardly oriented and deals with the goings-on between firms in the same territory. Here, the desirability of full disclosure is even stronger. A firm that fails to provide information about itself to firms on its turf, will likely fall prey to vicious rumours and informative manipulations by its competitors.

Positive information is characterized by four qualities:

0.***Transparency*** **–** Knowing the sources of the information, the methods by which it was obtained, the confirmation that none of it was unnecessarily suppressed (some would argue that there is no "necessary suppression") – constitutes the main edifice of transparency. The datum or information can be true, but if it is not perceived to be transparent – it will not be considered reliable. Think about an anonymous (=non-transparent) letter versus a signed letter – the latter will be more readily relied upon (subject to the reliability of the author, of course).

1. ***Reliability*** **–** is the direct result of transparency. Acquaintance with the source of information (including its history) and with the methods of its provision and dissemination will determine the level of reliability that we will attach to it. How

balanced is it? Is the source prejudiced or in any way an interested, biased, party? Was the information "force-fed" by the Government, was the media coerced to publish it by a major advertiser, was the journalist arrested after the publication? The circumstances surrounding the datum are as important as its content. The context of a piece of information is of no less consequence that the information contained in it. Above all, to be judged reliable, the information must "reflect" reality. I mean reflection not in the basic sense: a one to one mapping of the reflected. I intend it more as a resonance, a vibration in tune with the piece of the real world that it relates to. People say: "This sounds true" and the word "sounds" should be emphasized.

1. ***Comprehensiveness*** – Information will not be considered transparent, nor will it be judged reliable if it is partial. It must incorporate all the aspects of the world to which it relates, or else state explicitly what has been omitted and why (which is tantamount to including it, in the first place). A bit of information is embedded in a context and constantly interacts with it. Additionally, its various modules and content elements consistently and constantly interact with each other. A missing part implies ignorance of interactions and epiphenomena, which might crucially alter the interpretation of the information. Partiality renders information valueless. Needless to say, that I am talking about RELEVANT parts of the information. There are many other segments of it, which are omitted because their influence is negligible (the idealization process), or because it

is so great that they are common knowledge.

1. ***Organization*** **–** This, arguably, is the most important aspect of information. It is what makes information comprehensible. It includes the spatial and temporal (historic) context of the information, its interactions with its context, its inner interactions, as we described earlier, its structure, the rules of decision (grammar and syntax) and the rules of interpretation (semantics, etc.) to be applied. A worldview is provided, a theory into which the information fits. Embedded in this theory, it allows for predictions to be made in order to falsify the theory (or to prove it). Information cannot be understood in the absence of such a worldview. Such a worldview can be scientific, or religious – but it can also be ideological (Capitalism, Socialism), or related to an image which an entity wishes to project. An image is a theory about a person or a group of people. It is both supported by information – and supports it. It is a shorthand version of all the pertinent data, a stereotype in reverse.

There is no difference in the application of these rules to information and to interpretation (which is really information that relates to other information instead of relating to the World). Both categories can be formal and informal. Formal information is information that designates itself as such (carries a sign: "I am information"). It includes official publications by various bodies (accountants, corporations, The Bureau of Statistics, news bulletins, all the media, the Internet, various databases, whether in digitized format or in hard copy).

Informal information is information, which is not permanently captured or is captured without the intention of generating formal information (=without the pretence: "I am information"). Any verbal communication belongs here (rumours, gossip, general knowledge, background dormant data, etc.).

The modern world is glutted by information, formal and informal, partial and comprehensive, out of context and with interpretation. There are no conceptual, mental, or philosophically rigorous distinctions today between information and what it denotes or stands for. Actors are often mistaken for their roles, wars are fought on television, fictitious TV celebrities become real. That which has no information presence might as well have no real life existence. An entity – person, group of people, a nation – which does not engage in structuring content, providing and disseminating it – actively engages, therefore, in its own, slow, disappearance.

L

Lasch, Christopher – See; Narcissism, Cultural

Leaders, Narcissistic

"It was precisely that evening in Lodi that I came to believe in myself as an unusual person and became consumed with the ambition to do the great things that until then had been but a fantasy."

(Napoleon Bonaparte, "Thoughts")

"They may all e called Heroes, in as much as they have derived their purposes and their vocation not from the calm regular course of things, sanctioned by the existing order, but from a concealed fount, from that inner Spirit, still hidden beneath the surface, which impinges on the outer world as a shell and bursts it into pieces - such were Alexander, Caesar, Napoleon ... World-historical men - the Heroes of an epoch - must therefore be recognized as its clear-sighted ones: their deeds, their words are the best of their time ... Moral claims which are irrelevant must not be brought into collision with World-historical deeds ... So mighty a form must trample down many an innocent flower - crush to pieces many an object in its path."

(G.W.F. Hegel, "Lectures on the Philosophy of History")

"Such beings are incalculable, they come like fate without cause or reason, inconsiderately and without pretext. Suddenly they are here like lightning too terrible, too sudden, too compelling and too 'different' even to be hated ... What moves them is the terrible

egotism of the artist of the brazen glance, who knows himself to be justified for all eternity in his 'work' as the mother is justified in her child ...

In all great deceivers a remarkable process is at work to which they owe their power. In the very act of deception with all its preparations, the dreadful voice, expression, and gestures, they are overcome by their belief in themselves; it is this belief which then speaks, so persuasively, so miracle-like, to the audience."

(Friedrich Nietzsche, "The Genealogy of Morals")

"He knows not how to rule a kingdom, that cannot manage a province; nor can he wield a province, that cannot order a city; nor he order a city, that knows not how to regulate a village; nor he a village, that cannot guide a family; nor can that man govern well a family that knows not how to govern himself; neither can any govern himself unless his reason be lord, will and appetite her vassals; nor can reason rule unless herself be ruled by God, and be obedient to Him."

(Hugo Grotius)

The narcissistic leader is the culmination and reification of his period, culture, and civilization. He is likely to rise to prominence in narcissistic societies.

The malignant narcissist invents and then projects a false, fictitious, self for the world to fear, or to admire. He maintains a tenuous grasp on reality to start with and this is further exacerbated by the trappings of power. The narcissist's grandiose self-delusions and fantasies of omnipotence and omniscience are supported by real life authority and the narcissist's predilection to surround

himself with obsequious sycophants.

The narcissist's personality is so precariously balanced that he cannot tolerate even a hint of criticism and disagreement. Most narcissists are paranoid and suffer from ideas of reference (the delusion that they are being mocked or discussed when they are not). Thus, narcissists often regard themselves as "victims of persecution".

The narcissistic leader fosters and encourages a personality cult with all the hallmarks of an institutional religion: priesthood, rites, rituals, temples, worship, catechism, mythology. The leader is this religion's ascetic saint. He monastically denies himself earthly pleasures (or so he claims) in order to be able to dedicate himself fully to his calling.

The narcissistic leader is a monstrously inverted Jesus, sacrificing his life and denying himself so that his people - or humanity at large - should benefit. By surpassing and suppressing his humanity, the narcissistic leader became a distorted version of Nietzsche's "superman".

But being a-human or super-human also means being a-sexual and a-moral.

In this restricted sense, narcissistic leaders are post-modernist and moral relativists. They project to the masses an androgynous figure and enhance it by engendering the adoration of nudity and all things "natural" - or by strongly repressing these feelings. But what they refer to as "nature" is not natural at all.

The narcissistic leader invariably proffers an aesthetic of decadence and evil carefully orchestrated and artificial - though it is not perceived this way by him or by his followers. Narcissistic leadership is about reproduced

copies, not about originals. It is about the manipulation of symbols - not about veritable atavism or true conservatism.

In short: narcissistic leadership is about theatre, not about life. To enjoy the spectacle (and be subsumed by it), the leader demands the suspension of judgment, depersonalization, and de-realization. Catharsis is tantamount, in this narcissistic dramaturgy, to self-annulment.

Narcissism is nihilistic not only operationally, or ideologically. Its very language and narratives are nihilistic. Narcissism is conspicuous nihilism - and the cult's leader serves as a role model, annihilating the Man, only to re-appear as a pre-ordained and irresistible force of nature.

Narcissistic leadership often poses as a rebellion against the "old ways" - against the hegemonic culture, the upper classes, the established religions, the superpowers, the corrupt order. Narcissistic movements are puerile, a reaction to narcissistic injuries inflicted upon a narcissistic (and rather psychopathic) toddler nation-state, or group, or upon the leader.

Minorities or "others" - often arbitrarily selected - constitute a perfect, easily identifiable, embodiment of all that is "wrong". They are accused of being old, they are eerily disembodied, they are cosmopolitan, they are part of the establishment, they are "decadent", they are hated on religious and socio-economic grounds, or because of their race, sexual orientation, origin ... They are different, they are narcissistic (feel and act as morally superior), they are everywhere, they are defenceless, they are credulous, they are adaptable (and thus can be co-opted to

collaborate in their own destruction). They are the perfect hate figure. Narcissists thrive on hatred and pathological envy.

This is precisely the source of the fascination with Hitler, diagnosed by Erich Fromm - together with Stalin - as a malignant narcissist. He was an inverted human. His unconscious was his conscious. He acted out our most repressed drives, fantasies, and wishes. He provides us with a glimpse of the horrors that lie beneath the veneer, the barbarians at our personal gates, and what it was like before we invented civilization. Hitler forced us all through a time warp and many did not emerge. He was not the devil. He was one of us. He was what Arendt aptly called the banality of evil. Just an ordinary, mentally disturbed, failure, a member of a mentally disturbed and failing nation, who lived through disturbed and failing times. He was the perfect mirror, a channel, a voice, and the very depth of our souls.

The narcissistic leader prefers the sparkle and glamour of well-orchestrated illusions to the tedium and method of real accomplishments. His reign is all smoke and mirrors, devoid of substances, consisting of mere appearances and mass delusions. In the aftermath of his regime - the narcissistic leader having died, been deposed, or voted out of office - it all unravels. The tireless and constant prestidigitation ceases and the entire edifice crumbles. What looked like an economic miracle turns out to have been a fraud-laced bubble. Loosely-held empires disintegrate. Laboriously assembled business conglomerates go to pieces. "Earth shattering" and "revolutionary" scientific discoveries and theories are discredited. Social experiments end in mayhem.

It is important to understand that the use of violence must

be ego-syntonic. It must accord with the self-image of the narcissist. It must abet and sustain his grandiose fantasies and feed his sense of entitlement. It must conform with the narcissistic narrative.

Thus, a narcissist who regards himself as the benefactor of the poor, a member of the common folk, the representative of the disenfranchised, the champion of the dispossessed against the corrupt elite - is highly unlikely to use violence at first.

The pacific mask crumbles when the narcissist has become convinced that the very people he purported to speak for, his constituency, his grassroots fans, the prime sources of his narcissistic supply - have turned against him. At first, in a desperate effort to maintain the fiction underlying his chaotic personality, the narcissist strives to explain away the sudden reversal of sentiment. "The people are being duped by (the media, big industry, the military, the elite, etc.)", "they don't really know what they are doing", "following a rude awakening, they will revert to form", etc.

When these flimsy attempts to patch a tattered personal mythology fail - the narcissist is injured. Narcissistic injury inevitably leads to narcissistic rage and to a terrifying display of unbridled aggression. The pent-up frustration and hurt translate into devaluation. That which was previously idealized - is now discarded with contempt and hatred.

This primitive defense mechanism is called "splitting". To the narcissist, things and people are either entirely bad (evil) or entirely good. He projects onto others his own shortcomings and negative emotions, thus becoming a totally good object. A narcissistic leader is likely to justify

the butchering of his own people by claiming that they intended to kill him, undo the revolution, devastate the economy, or the country, etc.

The "small people", the "rank and file", the "loyal soldiers" of the narcissist - his flock, his nation, his employees - they pay the price. The disillusionment and disenchantment are agonizing. The process of reconstruction, of rising from the ashes, of overcoming the trauma of having been deceived, exploited and manipulated - is drawn-out. It is difficult to trust again, to have faith, to love, to be led, to collaborate. Feelings of shame and guilt engulf the erstwhile followers of the narcissist. This is his sole legacy: a massive post-traumatic stress disorder.

Leadership

How does a leader become a leader?

In this article, we are not interested in the historical process but in the answer to the twin questions: what qualifies one to be a leader and why do people elect someone specific to be a leader.

The immediately evident response would be that the leader addresses or is judged by his voters to be capable of addressing their needs. These could be economic needs, psychological needs, or moral needs. In all these cases, if left unfulfilled, these unrequited needs are judged to be capable of jeopardizing "acceptable (modes of) existence". Except in rare cases (famine, war, plague), survival is rarely at risk. On the contrary, people are mostly willing to sacrifice their genetic and biological survival on the altar of said "acceptable existence".

To be acceptable, life must be honorable. To be honorable, certain conditions (commonly known as "rights") must be fulfilled and upheld. No life is deemed honorable in the absence of food and shelter (property rights), personal autonomy (safeguarded by codified freedoms), personal safety, respect (human rights), and a modicum of influence upon one's future (civil rights). In the absence of even one of these elements, people tend to gradually become convinced that their lives are not worth living. They become mutinous and try to restore the "honorable equilibrium". They seek food and shelter by inventing new technologies and by implementing them in a bid to control nature and other, human, factors. They rebel against any massive breach of their freedoms. People seek safety: they legislate and create law enforcement agencies and form armies.

Above all, people are concerned with maintaining their dignity and an influence over their terms of existence, present and future. The two may be linked : the more a person influences his environment and moulds – the more respected he is by others. Leaders are perceived to be possessed of qualities conducive to the success of such efforts. The leader seems to be emitting a signal that tells his followers: I can increase your chances to win the constant war that you are waging to find food and shelter, to be respected, to enhance your personal autonomy and security, and o have a say about your future.

But WHAT is this signal? What information does it carry? How is it received and deciphered by the led? And how, exactly, does it influence their decision making processes?

The signal is, probably, a resonance. The information emanating from the leader, the air exuded by him, his personal data must resonate with the situation of the

people he leads. The leader must not only resonate with the world around him – but also with the world that he promises to usher. Modes, fashions, buzzwords, fads, beliefs, hopes, fears, hates and loves, plans, other information, a vision – all must be neatly incorporated in this resonance table. A leader is a shorthand version of the world in which he operates, a map of his times, the harmony (if not the melody) upon which those led by him can improvise. They must see in him all the principle elements of their mental life: grievances, agreements, disagreements, anger, deceit, conceit, myths and facts, interpretation, compatibility, guilt, paranoia, illusions and delusions – all wrapped (or warped) into one neat parcel. It should not be taken to mean that the leader must be an average person – but he must discernibly contain the average person or faithfully reflect him. His voice must echo the multitude of sounds that formed the popular wave which swept him to power. This ability of his, to be and not to be, to vacate himself, to become the conduit of other people's experiences and existence, in short: to be a gifted actor – is the first element in the leadership signal. It is oriented to the past and to the present.

The second element is what makes the leader distinct. Again, it is resonance. The leader must be perceived to resonate in perfect harmony with a vision of the future, agreeable to the people who elected him. "Agreeable" – read: compatible with the fulfilment of the aforementioned needs in a manner, which renders life acceptable. Each group of people has its own requirements, explicit and implicit, openly expressed and latent.

The members of a nation might feel that they lost the ability to shape their future and that their security is

compromised. They will then select a leader who will – so they believe, judged by what they know about him – restore both. The means of restoration are less important. To become a leader, one must convince the multitude, the masses, the public that one can deliver, not that one knows the best, most optimal and most efficient path to a set goal. The HOW is of no consequences. It pales compared to the WILL HE ? This is because people value the results more than the way. Even in the most individualistic societies, people prefer the welfare of the group to which they belong to their own. The leader promises to optimize utility for the group as a whole. It is clear that not all the members will equally benefit, or even benefit at all. The one who convinces his fellow beings that he can secure the attainment of their goals (and, thus, provide for their needs satisfactorily) – becomes a leader. What matters to the public varies from time to time and from place to place. To one group of people, the personality of the leader is of crucial importance, to others his ancestral roots. At one time, the religious affiliation, and at another, the right education, or a vision of the future. Whatever determines the outcome, it must be strongly correlated with what the group perceives to be its needs and firmly founded upon its definition of an acceptable life. This is the information content of the signal.

Selecting a leader is no trivial pursuit. People take it very seriously. They often believe that the results of this decision also determine whether their needs are fulfilled or not. In other words : the choice of leader determines if they lead an acceptable life. These seriousness and contemplative attitude prevail even when the leader is chosen by a select few (the nobility, the party).

Thus, information about the leader is gathered from open

sources, formal and informal, by deduction, induction and inference, through contextual surmises, historical puzzle-work and indirect associations. To which ethnic group does the candidate belong? What is his history and his family's / tribe's / nation's? Where is he coming from , geographically and culturally? What is he aiming at and where is he going to, what is his vision? Who are his friends, associates, partners, collaborators, enemies and rivals? What are the rumours about him, the gossip? These are the cognitive, epistemological and hermeneutic dimensions of the information gathered. It is all subject to a process very similar to scientific theorizing. Hypotheses are constructed to fit the known facts. Predictions are made. Experiments conducted and data gathered. A theory is then developed and applied to the known facts. As more data is added – the theory undergoes revisions or even a paradigmatic shift. As with scientific conservatism, the reigning theory tends to colour the interpretation of new data. A cult of "priests' (commentators and pundits) emerges to defend common wisdom and "well known" "facts" against intellectual revisionism and non-conformism. But finally the theory settles down and a consensus emerges: a leader is born.

The emotional aspect is predominant, though. Emotions play the role of gatekeepers and circuit breakers in the decision-making processes involved in the selection of a leader. They are the filters, the membranes through which information seeps into the minds of the members of the group. They determine the inter-relations between the various data. Finally, they assign values and moral and affective weights within a coherent emotional framework to the various bits information . Emotions are rules of procedure. The information is the input processed by these rules within a fuzzy decision theorem. The leader is the

outcome (almost the by-product) of this process.

This is a static depiction, which does not provide us with the dynamics of the selection process. How does the information gathered affect it? Which elements interact? How is the outcome determined?

It would seem that people come naturally equipped with a mechanism for the selection of leaders. This mechanism is influenced by experience (a-posteriori). It is in the form of procedural rules, an algorithm which guides the members of the group in the intricacies of the group interaction known as "leadership selection".

This leader-selection mechanism comprises two modules: a module for the evaluation and taxonomy of information and an interactive module. The former is built to deal with constantly added data, to evaluate them and to alter the emerging picture (Weltanschauung) accordingly (to reconstruct or to adjust the theory, even to replace it with another).

The second module responds to signals from the other members of the group and treats these signals as data, which, in turn, affects the performance of the first module. The synthesis of the output produced by these two modules determines the ultimate selection.

Leader selection is an interaction between a "nucleus of individuality", which is comprised of our Self, the way we perceive our Self (introspective element) and the way that we perceive our Selves as reflected by others. Then there is the "group nucleus", which incorporates the group's consciousness and goals. A leader is a person who succeeds in giving expression to both these nuclei amply and successfully. When choosing a leader, we, thus, really

are choosing ourselves.

APPENDIX - A Comment on Campaign Finance Reform

The Athenian model of representative participatory democracy was both exclusive and direct. It excluded women and slaves but it allowed the rest to actively, constantly, and consistently contribute to decision making processes on all levels and of all kinds (including juridical). This was (barely) manageable in a town 20,000 strong.

The application of this model to bigger polities is rather more problematic and leads to serious and ominous failures.

The problem of the gathering and processing of information - a logistical constraint - is likely to be completely, satisfactorily, and comprehensively resolved by the application of of computer networks to voting. Even with existing technologies, election results (regardless of the size of the electorate), can be announced with great accuracy within hours.

Yet, computer networks are unlikely to overcome the second obstacle - the problem of the large constituency.

Political candidates in a direct participatory democracy need to keep each and every member of their constituency (potential voter) informed about their platform, (if incumbent) their achievements, their person, and what distinguishes them from their rivals. This is a huge amount of information. Its dissemination to large constituencies requires outlandish amounts of money (tens of millions of dollars per campaign).

Politicians end up spending a lot of their time in office (and out of it) raising funds through "contributions" which place them in hock to "contributing" individuals and corporations. This anomaly cannot be solved by tinkering with campaign finance laws. It reflects the real costs of packaging and disseminating information. To restrict these activities would be a disservice to democracy and to voters.

Campaign finance reform in its current (myriad) forms, is, thus, largely anti-democratic: it limits access to information (by reducing the money available to the candidates to spread their message). By doing so, it restricts choice and it tilts the electoral machinery in favor of the haves. Voters with money and education are able to obtain the information they need by themselves and at their own expense. The haves-not, who rely exclusively on information dished out by the candidates, are likely to be severely disadvantaged by any form of campaign finance reform.

The solution is to reduce the size of the constituencies. This can be done only by adopting an indirect, non-participatory form of democracy, perhaps by abolishing the direct election (and campaigning) of most currently elected office holders. Direct elections in manageable constituencies will be confined to multi-tiered, self-dissolving ("sunset") "electoral colleges" composed exclusively of volunteers.

Left vs. Right (in Europe)

Even as West European countries seemed to have edged to the right of the political map - all three polities of central Europe lurched to the left. Socialists were elected to replace economically successful right wing governments

in Poland, Hungary and, recently, in the Czech Republic.

This apparent schism is, indeed, merely an apparition. The differences between reformed left and new right in both parts of the continent have blurred to the point of indistinguishability. French socialists have privatized more than their conservative predecessors. The Tories still complain bitterly that Tony Blair, with his nondescript "Third Way", has stolen their thunder.

Nor are the "left" and "right" ideologically monolithic and socially homogeneous continental movements. The central European left is more preoccupied with a social - dare I say socialist - agenda than any of its Western coreligionists. Equally, the central European right is less individualistic, libertarian, religious, and conservative than any of its Western parallels - and much more nationalistic and xenophobic. It sometimes echoes the far right in Western Europe - rather than the center-right, mainstream, middle-class orientated parties in power.

Moreover, the right's victories in Western Europe - in Spain, Denmark, the Netherlands, Italy - are not without a few important exceptions - notably Britain and, perhaps, come September, Germany. Nor is the left's clean sweep of the central European electoral slate either complete or irreversible. With the exception of the outgoing Czech government, not one party in this volatile region has ever remained in power for more than one term. Murmurs of discontent are already audible in Poland and Hungary.

Left and right are imported labels with little explanatory power or relevance to central Europe. To fathom the political dynamics of this region, one must realize that the core countries of central Europe (the Czech Republic, Hungary and, to a lesser extent, Poland) experienced

industrial capitalism in the inter-war period. Thus, a political taxonomy based on urbanization and industrialization may prove to be more powerful than the classic left-right dichotomy.

THE RURAL versus THE URBAN

The enmity between the urban and the bucolic has deep historical roots. When the teetering Roman Empire fell to the Barbarians (410-476 AD), five centuries of existential insecurity and mayhem ensued. Vassals pledged allegiance and subservience to local lords in return for protection against nomads and marauders. Trading was confined to fortified medieval cities.

Even as it petered out in the west, feudalism remained entrenched in the prolix codices and patents of the Habsburg Austro-Hungarian empire which encompassed central Europe and collapsed only in 1918. Well into the twentieth century, the majority of the denizens of these moribund swathes of the continent worked the land. This feudal legacy of a brobdignagian agricultural sector in, for instance, Poland - now hampers the EU accession talks.

Vassals were little freer than slaves. In comparison, burghers, the inhabitants of the city, were liberated from the bondage of the feudal labour contract. As a result, they were able to acquire private possessions and the city acted as supreme guarantor of their property rights. Urban centers relied on trading and economic might to obtain and secure political autonomy.

John of Paris, arguably one of the first capitalist cities (at least according to Braudel), wrote: "(The individual) had a right to property which was not with impunity to be interfered with by superior authority - because it was

acquired by (his) own efforts" (in Georges Duby, "The age of the Cathedrals: Art and Society, 980-1420, Chicago, Chicago University Press, 1981). Max Weber, in his opus, "The City" (New York, MacMillan, 1958) wrote optimistically about urbanization: "The medieval citizen was on the way towards becoming an economic man ... the ancient citizen was a political man."

But communism halted this process. It froze the early feudal frame of mind of disdain and derision towards "non-productive", "city-based" vocations. Agricultural and industrial occupations were romantically extolled by communist parties everywhere. The cities were berated as hubs of moral turpitude, decadence and greed. Ironically, avowed anti-communist right wing populists, like Hungary's former prime minister, Orban, sought to propagate these sentiments, to their electoral detriment.

Communism was an urban phenomenon - but it abnegated its "bourgeoisie" pedigree. Private property was replaced by communal ownership. Servitude to the state replaced individualism. Personal mobility was severely curtailed. In communism, feudalism was restored.

Very like the Church in the Middle Ages, communism sought to monopolize and permeate all discourse, all thinking, and all intellectual pursuits. Communism was characterized by tensions between party, state and the economy - exactly as the medieval polity was plagued by conflicts between church, king and merchants-bankers.

In communism, political activism was a precondition for advancement and, too often, for personal survival. John of Salisbury might as well have been writing for a communist agitprop department when he penned this in "Policraticus" (1159 AD): "...if (rich people, people with

private property) have been stuffed through excessive greed and if they hold in their contents too obstinately, (they) give rise to countless and incurable illnesses and, through their vices, can bring about the ruin of the body as a whole". The body in the text being the body politic.

Workers, both industrial and agricultural, were lionized and idolized in communist times. With the implosion of communism, these frustrated and angry rejects of a failed ideology spawned many grassroots political movements, lately in Poland, in the form of "Self Defence". Their envied and despised enemies are the well-educated, the intellectuals, the self-proclaimed new elite, the foreigner, the minority, the rich, and the remote bureaucrat in Brussels.

Like in the West, the hinterland tends to support the right. Orban's Fidesz lost in Budapest in the recent elections - but scored big in villages and farms throughout Hungary. Agrarian and peasant parties abound in all three central European countries and often hold the balance of power in coalition governments.

THE YOUNG and THE NEW versus THE TIRED and THE TRIED

The cult of youth in central Europe was an inevitable outcome of the utter failure of older generations. The allure of the new and the untried often prevailed over the certainty of the tried and failed. Many senior politicians, managers, entrepreneurs and journalists across this region are in their 20's or 30's.

Yet, the inexperienced temerity of the young has often led to voter disillusionment and disenchantment. Many among the young are too identified with the pratfalls of

"reform". Age and experience reassert themselves through the ballot boxes - and with them the disingenuous habits of the past. Many of the "old, safe hands" are former communists disingenuously turned socialists turned democrats turned capitalists. As even revolutionaries age, they become territorial and hidebound. Turf wars are likely to intensify rather then recede.

THE TECHNOCRATS / EXPERTS versus THE LOBBYIST-MANAGERS

Communist managers - always the quintessential rent-seekers - were trained to wheedle politicians, lobby the state and cadge for subsidies and bailouts, rather than respond to market signals. As communism imploded, the involvement of the state in the economy - and the resources it commanded - contracted. Multilateral funds are tightly supervised. Communist-era "directors" - their skills made redundant by these developments - were shockingly and abruptly confronted with merciless market realities.

Predictably they flopped and were supplanted by expert managers and technocrats, more attuned to markets and to profits, and committed to competition and other capitalistic tenets. The decrepit, "privatized" assets of the dying system expropriated by the nomenclature were soon acquired by foreign investors, or shut down. The old guard has decisively lost its capital - both pecuniary and political.

Political parties which relied on these cronies for contributions and influence-peddling - are in decline. Those that had the foresight to detach themselves from the venality and dissipation of "the system" are on the ascendance. From Haiderism to Fortuynism and from

Lepper to Medgyessy - being an outsider is a distinct political advantage in both west and east alike.

THE BUREAUCRATS versus THE POLITICIANS

The notion of an a-political civil service and its political - though transient - masters is alien to post communist societies. Every appointment in the public sector, down to the most insignificant sinecure, is still politicized. Yet, the economic decline precipitated by the transition to free markets, forced even the most backward political classes to appoint a cadre of young, foreign educated, well-traveled, dynamic, and open minded bureaucrats.

These are no longer a negligible minority. Nor are they bereft of political assets. Their power and ubiquity increase with every jerky change of government. Their public stature, expertise, and contacts with their foreign counterparts threaten the lugubrious and supernumerary class of professional politicians - many of whom are ashen remnants of the communist conflagration. Hence the recent politically-tainted attempts to curb the powers of central bankers in Poland and the Czech Republic.

THE NATIONALISTS versus THE EUROPEANS

The malignant fringe of far-right nationalism and far left populism in central Europe is more virulent and less sophisticated than its counterparts in Austria, Denmark, Italy, France, or the Netherlands. With the exception of Poland, though, it is on the wane.

Populists of all stripes combine calls for a thinly disguised "strong man" dictatorship with exclusionary racist xenophobia, strong anti-EU sentiments, conspiracy theory streaks of paranoia, the revival of an imaginary rustic and family-centered utopia, fears of unemployment and

economic destitution, regionalism and local patriotism.

Though far from the mainstream and often derided and ignored - they succeeded to radicalize both the right and the left in central Europe, as they have done in the west. Thus, mainstream parties were forced to adopt a more assertive foreign policy tinged with ominous nationalism (Hungary) and anti-Europeanism (Poland, Hungary). There has been a measurable shift in public opinion as well - towards disenchantment with EU enlargement and overtly exclusionary nationalism. This was aided by Brussels' lukewarm welcome, discriminatory and protectionist practices, and bureaucratic indecisiveness.

These worrisome tendencies are balanced by the inertia of the process. Politicians of all colors are committed to the European project. Carping aside, the countries of central Europe stand to reap significant economic benefits from their EU membership. Still, the outcome of this clash between parochial nationalism and Europeanism is far from certain and, contrary to received wisdom, the process is reversible.

THE CENTRALISTS versus THE REGIONALISTS

The recent bickering about the Benes decrees proves that the vision of a "Europe of regions" is ephemeral. True, the century old nation state has weakened greatly and the centripetal energy of regions has increased. But this applies only to homogeneous states.

Minorities tend to disrupt this continuity and majorities do their damnedest to eradicate these discontinuities by various means - from assimilation (central Europe) to extermination (the Balkan). Hungary's policies - its status law and the economic benefits it bestowed upon expatriate

Hungarians - is the epitome of such tendencies.

These axes of tension delineate and form central Europe's political landscape. The Procrustean categories of "left" and "right" do injustice to these subtleties. As central Europe matures into fully functioning capitalistic liberal democracies, proper leftwing parties and their rightwing adversaries are bound to emerge. But this is still in the future.

Leisure and Work

The official working week is being reduced to 35 hours a week. In most countries in the world, it is limited to 45 hours a week. The trend during the last century seems to be unequivocal: less work, more play.

Yet, what may be true for blue collar workers or state employees – is not necessarily so for white collar members of the liberal professions. It is not rare for these people – lawyers, accountants, consultants, managers, academics – to put in 80 hour weeks. The phenomenon is so widespread and its social consequences so damaging that it acquired the unflattering nickname: workaholism, a combination of the words "work" and "alcoholism". Family life is disrupted, intellectual horizons narrow, the consequences to the workaholic's health are severe: fat, lack of exercise, stress take their toll. Classified as "alpha" types, workaholics suffer three times as many heart attacks as their peers.

But what are the social and economic roots of this phenomenon?

Put succinctly, it is the result of the blurring borders and differences between work and leisure. The distinction

between these two types of time – the one dedicated to labour and the one spent in the pursuit of one's interests – was so clear for thousands of years that its gradual disappearance is one of the most important and profound social changes in human history.

A host of other shifts in the character of the work and domestic environments of humans converged to produce this momentous change.

Arguably the most important was the increase in labour mobility and the fluid nature of the very concept of work and the workplace. The transitions from agricultural to industrial, then to the services and now to the information and knowledge societies, each, in turn, increased the mobility of the workforce. A farmer is the least mobile. His means of production are fixed, his produce was mostly consumed locally because of lack of proper refrigeration, preservation and transportation methods. A marginal group of people became nomad-traders. This group exploded in size with the advent of the industrial revolution. True, the bulk of the workforce was still immobile and affixed to the production floor. But raw materials and the finished products travelled long distances to faraway markets. Professional services were needed and the professional manager, the lawyer, the accountant, the consultant, the trader, the broker – all emerged as both the parasites of the production processes and the indispensable oil on its cogs.

Then came the services industry. Its protagonists were no longer geographically dependent. They rendered their services to a host of "employers" in a variety of ways and geographically spread. This trend accelerated today, at the beginning of the information and knowledge revolution. Knowledge is not locale-bound. It is easily

transferable across boundaries. Its ephemeral quality gives it a-temporal and non-spatial qualities. The location of the participants in the economic interactions of this new age are geographically transparent.

These trends converged with an increase of mobility of people, goods and data (voice, visual, textual and other). The twin revolutions of transportation and of telecommunications really reduced the world to a global village. Phenomena like commuting to work and multinationals were first made possible. Facsimile messages, electronic mail, other modem data transfers, the Internet broke not only physical barriers – but also temporal ones. Today, virtual offices are not only spatially virtual – but also temporally so. This means that workers can collaborate not only across continents but also across time zones. They can leave their work for someone else to continue in an electronic mailbox, for instance.

These last technological advances precipitated the fragmentation of the very concepts of "work" and "workplace". No longer the three Aristotelian dramatic unities. Work could be carried out in different places, not simultaneously, by workers who worked part time whenever it suited them best, Flexitime and work from home replaced commuting as the preferred venue (much more so in the Anglo-Saxon countries, but they have always been the pioneering harbingers of change). This fitted squarely into the social fragmentation which characterizes today's world: the disintegration of previously cohesive social structures, such as the nuclear (not to mention the extended) family. This was all neatly wrapped in the ideology of individualism which was presented as a private case of capitalism and liberalism. People were encouraged to feel and behave as

distinct, autonomous units. The perception of individuals as islands replaced the former perception of humans as cells in an organism.

This trend was coupled with – and enhanced by – the unprecedented successive annual rises in productivity and increases in world trade. These trends were brought about by new management techniques, new production technology, innovative inventory control methods, automatization, robotization, plant modernization, telecommunications (which facilitates more efficient transfers of information), even new design concepts. But productivity gains made humans redundant. No amount of retraining could cope with the incredible rate of technological change. The more technologically advanced the country – the higher its structural unemployment (attributable to changes in the very structure of the market) went.

In Western Europe, it shot up from 5-6% of the workforce to 9% in one decade. One way to manage this flood of ejected humans was to cut the workweek. Another was to support a large population of unemployed. The third, more tacit, way was to legitimize leisure time. Whereas the Jewish and Protestant work ethics condemned idleness in the past – they now started encouraging people to "self fulfil", pursue habits and non-work related interests and express the whole of their personality.

This served to blur the historical differences between work and leisure. They were both commended now by the mores of our time. Work became less and less structured and rigid – formerly, the main feature of leisure time. Work could be pursued – and to an ever growing extent, was pursued – from home. The territorial separation between "work-place" and "home turf" was

essentially eliminated. The emotional leap was only a question of time. Historically, people went to work because they had to – and all the rest was designated "pleasure". Now, both were pleasure – or torture – or mixture. Some people began to enjoy their work so much that it fulfilled for them the functions normally reserved to leisure time. They are the workaholics. Others continued to hate work – but felt disoriented in the new, leisure enriched environment. They were not qualified or trained to deal with excess time, lack of framework, no clear instructions what to do, when, with whom and to what.

Socialization processes and socialization agents (the State, parents, educators, employers) were not geared – nor did they regard it as being their responsibility – to train the populace to cope with free time and with the baffling and dazzling variety of options.

Economies and markets can be classified using many criteria. Not the least of them is the work-leisure axis. Those societies and economies that maintain the old distinction between (hated) work and (liberating) leisure – are doomed to perish or, at best, radically lag behind. This is because they will not have developed a class of workaholics big enough to move the economy ahead.

And this is the Big Lesson: it takes workaholics to create, maintain and expand capitalism. As opposed to common beliefs (held by the uninitiated) – people, mostly, do not engage in business because they are looking for money (the classic profit motive). They do what they do because they like the Game of Business, its twists and turns, the brainstorming, the battle of brains, subjugating markets, the ups and downs, the excitement. All this has nothing to do with pure money. It has everything to do with psychology. True, the meter by which success is measured

in the world of money is money – but very fast it is transformed into an abstract meter, akin to the monopoly money. It is a symbol of shrewdness, wit, foresight and insight.

Workaholics identify business with pleasure. They are the embodiment of the pleasure principle. They make up the class of the entrepreneurs, the managers, the businessmen. They are the movers, the shakers, the pushers, the energy. Without them, we have socialist economies, where everything belongs to everyone and, actually to none. In these economies of "collective ownership" people go to work because they have to, they try to avoid it, to sabotage the workplace, they harbour negative feelings. Slowly, they wither and die (professionally) – because no one can live long in hatred and deceit. Joy is an essential ingredient.

And this is the true meaning of capitalism: the abolition of work and leisure and the pursuit of both with the same zeal and satisfaction. Above all, the (increasing) liberty to do it whenever, wherever, with whomever you choose. Unless and until the Homo East Europeansis changes his set of mind – there will be no real transition. Because transition happens in the human mind much before it takes form in reality. It is no use to dictate, to legislate, to finance, to cajole, to offer – the human being must change first. It was Marx (a devout non-capitalist) who said: it is consciousness that determines reality. How right was he. Witness the USA and witness the miserable failure of communism.

Lies and Lying

All people lie some of the time. They use words to convey their lies while their body language usually gives them

away. This is curious. Why did evolution prefer this self defeating strategy? The answer lies in the causes of the phenomenon.

We lie for three main reasons and these give rise to three categories of lies:

1. ***The Empathic Lie*** – is a lie told with the intention of sparing someone's feelings. It is a face saving lie – but someone else's face. It is designed to prevent a loss of social status, the onslaught of social sanctions, the process of judgement involved in both. It is a derivative o our ability to put ourselves in someone else's shoes – that is, to empathize. It is intended to spare OUR feelings, which are bound to turn more and more unpleasant the more we sympathize with the social-mental predicament of the person lied to. The reverse, brutal honesty, at all costs and in all circumstances – is a form of sadistic impulse. The lie achieves its goal only if the recipient cooperates, does not actively seek the truth out and acquiescently participates in the mini-drama unfolding in his honour.

2. ***The Egocentric Lie*** – is a lie intended to further the well being of the liar. This can be achieved in one of two ways. The lie can help the liar to achieve his goals (a ***Goal Seeking Lie)*** or to avoid embarrassment, humiliation, social sanctions, judgement, criticism and, in general, unpleasant experiences related to social standing (a ***Face Saving Lie)***. The Goal Seeking Lie is useful only when considering the liar as an individual, independent unit. The Face Saving type is instrumental only in social situations. We can use

the terms: ***Individualistic Lie*** and ***Social Lie*** respectively.

3. ***The Narcissistic Lie*** – is separated from his brethren by its breadth and recursiveness. It is all-pervasive, ubiquitous, ever recurring, all encompassing, entangled and intertwined with all the elements of the liar's life and personality. Moreover, it is a lie of whose nature the liar is not aware and he is convinced of its truth. But the people surrounding the Narcissist liar notice the lie. The Narcissist-liar is rather like a hunchback without a mirror. He does not believe in the reality of his own hump. It seems that where the liar does not believe his own lies – he succeeds in convincing his victims rather effectively. When he does believe in his own inventions – he fails miserably at trapping his fellow men. Much more about the False Self (the lie that underlies the personality of the Narcissist) in "Malignant Self Love – Narcissism Revisited" and the FAQ section thereof.

Life, Human

The preservation of human life is the ultimate value, a pillar of ethics and the foundation of all morality. This held true in most cultures and societies throughout history.

On first impression, the last sentence sounds patently wrong. We all know about human collectives that regarded human lives as dispensable, that murdered and tortured, that cleansed and annihilated whole populations in recurrent genocides. Surely, these defy the aforementioned statement?

Liberal philosophies claim that human life was treated as a prime value throughout the ages. Authoritarian regimes do not contest the over-riding importance of this value. Life is sacred, valuable, to be cherished and preserved. But, in totalitarian societies, it can be deferred, subsumed, subjected to higher goals, quantized, and, therefore, applied with differential rigor in the following circumstances:

1. ***Quantitative*** - when a lesser evil prevents a greater one. Sacrificing the lives of the few to save the lives of the many is a principle enshrined and embedded in activities such as war and medicinal care. All cultures, no matter how steeped (or rooted) in liberal lore accept it. They all send soldiers to die to save the more numerous civilian population. Medical doctors sacrifice lives daily, to save others.
   It is boils down to a quantitative assessment ("the numerical ratio between those saved and those sacrificed"), and to questions of quality ("are there privileged lives whose saving or preservation is worth the sacrifice of others' lives?") and of evaluation (no one can safely predict the results of such moral dilemmas - will lives be saved as the result of the sacrifice?).

2. ***Temporal*** - when sacrificing life (voluntarily or not) in the present secures a better life for others in the future. These future lives need not be more numerous than the lives sacrificed. A life in the future immediately acquires the connotation of youth in need of protection. It is the old sacrificed for the sake of the new, a trade off between those who already had their share of life - and those who

hadn't. It is the bloody equivalent of a savings plan: one defers present consumption to the future. The mirror image of this temporal argument belongs to the third group (see next), the qualitative one. It prefers to sacrifice a life in the present so that another life, also in the present, will continue to exist in the future. Abortion is an instance of this approach: the life of the child is sacrificed to secure the future well-being of the mother. In Judaism, it is forbidden to kill a female bird. Better to kill its off-spring. The mother has the potential to compensate for this loss of life by bringing giving birth to other chicks.

3. ***Qualitative*** - This is an especially vicious variant because it purports to endow subjective notions and views with "scientific" objectivity. People are judged to belong to different qualitative groups (classified by race, skin color, birth, gender, age, wealth, or other arbitrary parameters). The result of this immoral taxonomy is that the lives of the "lesser" brands of humans are considered less "weighty" and worthy than the lives of the upper grades of humanity. The former are therefore sacrificed to benefit the latter. The Jews in Nazi occupied Europe, the black slaves in America, the aborigines in Australia are three examples of such pernicious thinking.

4. ***Utilitarian*** - When the sacrifice of one life brings another person material or other benefits. This is the thinking (and action) which characterizes psychopaths and sociopathic criminals, for instance. For them, life is a tradable commodity and it can be exchanged against inanimate goods

and services. Money and drugs are bartered for life.

Life, Right to

I. **The Right to Life**

Generations of malleable Israeli children are brought up on the story of the misnamed Jewish settlement Tel-Hai ("Mount of Life"), Israel's Alamo. There, among the picturesque valleys of the Galilee, a one-armed hero named Joseph Trumpeldor is said to have died, eight decades ago, from an Arab stray bullet, mumbling: "It is good to die for our country." Judaism is dubbed "A Teaching of Life" - but it would seem that the sanctity of life can and does take a back seat to some overriding values.

The right to life - at least of human beings - is a rarely questioned fundamental moral principle. In Western cultures, it is assumed to be inalienable and indivisible (i.e., monolithic). Yet, it is neither. Even if we accept the axiomatic - and therefore arbitrary - source of this right, we are still faced with intractable dilemmas. All said, the right to life may be nothing more than a cultural construct, dependent on social mores, historical contexts, and exegetic systems.

Rights - whether moral or legal - impose obligations or duties on third parties towards the right-holder. One has a right AGAINST other people and thus can prescribe to them certain obligatory behaviours and proscribe certain acts or omissions. Rights and duties are two sides of the same Janus-like ethical coin.

This duality confuses people. They often erroneously

identify rights with their attendant duties or obligations, with the morally decent, or even with the morally permissible. One's rights inform other people how they MUST behave towards one - not how they SHOULD or OUGHT to act morally. Moral behaviour is not dependent on the existence of a right. Obligations are.

To complicate matters further, many apparently simple and straightforward rights are amalgams of more basic moral or legal principles. To treat such rights as unities is to mistreat them.

Take the right to life. It is a compendium of no less than eight distinct rights: the right to be brought to life, the right to be born, the right to have one's life maintained, the right not to be killed, the right to have one's life saved, the right to save one's life (wrongly reduced to the right to self-defence), the right to terminate one's life, and the right to have one's life terminated.

None of these rights is self-evident, or unambiguous, or universal, or immutable, or automatically applicable. It is safe to say, therefore, that these rights are not primary as hitherto believed - but derivative.

The Right to be Brought to Life

In most moral systems - including all major religions and Western legal methodologies - it is life that gives rise to rights. The dead have rights only because of the existence of the living. Where there is no life - there are no rights. Stones have no rights (though many animists would find this statement abhorrent).

Hence the vitriolic debate about cloning which involves denuding an unfertilized egg of its nucleus. Is there life in an egg or a sperm cell?

That something exists, does not necessarily imply that it harbors life. Sand exists and it is inanimate. But what about things that exist and have the potential to develop life? No one disputes the existence of eggs and sperms - or their capacity to grow alive.

Is the potential to be alive a legitimate source of rights? Does the egg have any rights, or, at the very least, the right to be brought to life (the right to become or to be) and thus to acquire rights? The much trumpeted right to acquire life pertains to an entity which exists but is not alive - an egg. It is, therefore, an unprecedented kind of right. Had such a right existed, it would have implied an obligation or duty to give life to the unborn and the not yet conceived.

Clearly, life manifests, at the earliest, when an egg and a sperm unite at the moment of fertilization. Life is not a potential - it is a process triggered by an event. An unfertilized egg is neither a process - nor an event. It does not even possess the potential to become alive unless and until it is fertilized.

The potential to become alive is not the ontological equivalent of actually being alive. A potential life cannot give rise to rights and obligations. The transition from potential to being is not trivial, nor is it automatic, or inevitable, or independent of context. Atoms of various elements have the potential to become an egg (or, for that matter, a human being) - yet no one would claim that they ARE an egg (or a human being), or that they should be treated as such (i.e., with the same rights and obligations).

The Right to be Born

While the right to be brought to life deals with potentials -

the right to be born deals with actualities. When one or two adults voluntarily cause an egg to be fertilized by a sperm cell with the explicit intent and purpose of creating another life - the right to be born crystallizes. The voluntary and premeditated action of said adults amounts to a contract with the embryo - or rather, with society which stands in for the embryo.

Henceforth, the embryo acquires the entire panoply of human rights: the right to be born, to be fed, sheltered, to be emotionally nurtured, to get an education, and so on.

But what if the fertilization was either involuntary (rape) or unintentional ("accidental" pregnancy)?

Is the embryo's successful acquisition of rights dependent upon the nature of the conception? We deny criminals their loot as "fruits of the poisoned tree". Why not deny an embryo his life if it is the outcome of a crime? The conventional response - that the embryo did not commit the crime or conspire in it - is inadequate. We would deny the poisoned fruits of crime to innocent bystanders as well. Would we allow a passerby to freely spend cash thrown out of an escape vehicle following a robbery?

Even if we agree that the embryo has a right to be kept alive - this right cannot be held against his violated mother. It cannot oblige her to harbor this patently unwanted embryo. If it could survive outside the womb, this would have solved the moral dilemma. But it is dubious - to say the least - that it has a right to go on using the mother's body, or resources, or to burden her in any way in order to sustain its own life.

The Right to Have One's Life Maintained

This leads to a more general quandary. To what extent can

one use other people's bodies, their property, their time, their resources and to deprive them of pleasure, comfort, material possessions, income, or any other thing - in order to maintain one's life?

Even if it were possible in reality, it is indefensible to maintain that I have a right to sustain, improve, or prolong my life at another's expense. I cannot demand - though I can morally expect - even a trivial and minimal sacrifice from another in order to prolong my life. I have no right to do so.

Of course, the existence of an implicit, let alone explicit, contract between myself and another party would change the picture. The right to demand sacrifices commensurate with the provisions of the contract would then crystallize and create corresponding duties and obligations.

No embryo has a right to sustain its life, maintain, or prolong it at its mother's expense. This is true regardless of how insignificant the sacrifice required of her is.

Yet, by knowingly and intentionally conceiving the embryo, the mother can be said to have signed a contract with it. The contract causes the right of the embryo to demand such sacrifices from his mother to crystallize. It also creates corresponding duties and obligations of the mother towards her embryo.

We often find ourselves in a situation where we do not have a given right against other individuals - but we do possess this very same right against society. Society owes us what no constituent-individual does.

Thus, we all have a right to sustain our lives, maintain, prolong, or even improve them at society's expense - no matter how major and significant the resources required.

Public hospitals, state pension schemes, and police forces may be needed in order to fulfill society's obligations to prolong, maintain, and improve our lives - but fulfill them it must.

Still, each one of us can sign a contract with society - implicitly or explicitly - and abrogate this right. One can volunteer to join the army. Such an act constitutes a contract in which the individual assumes the duty or obligation to give up his or her life.

The Right not to be Killed

It is commonly agreed that every person has the right not to be killed unjustly. Admittedly, what is just and what is unjust is determined by an ethical calculus or a social contract - both constantly in flux.

Still, even if we assume an Archimedean immutable point of moral reference - does A's right not to be killed mean that third parties are to refrain from enforcing the rights of other people against A? What if the only way to right wrongs committed by A against others - was to kill A? The moral obligation to right wrongs is about restoring the rights of the wronged.

If the continued existence of A is predicated on the repeated and continuous violation of the rights of others - and these other people object to it - then A must be killed if that is the only way to right the wrong and re-assert the rights of A's victims.

The Right to have One's Life Saved

There is no such right because there is no moral obligation or duty to save a life. That people believe otherwise demonstrates the muddle between the morally

commendable, desirable, and decent ("ought", "should") and the morally obligatory, the result of other people's rights ("must"). In some countries, the obligation to save a life is codified in the law of the land. But legal rights and obligations do not always correspond to moral rights and obligations, or give rise to them.

The Right to Save One's Own Life

One has a right to save one's life by exercising self-defence or otherwise, by taking certain actions or by avoiding them. Judaism - as well as other religious, moral, and legal systems - accept that one has the right to kill a pursuer who knowingly and intentionally is bent on taking one's life. Hunting down Osama bin-Laden in the wilds of Afghanistan is, therefore, morally acceptable (though not morally mandatory).

But does one have the right to kill an innocent person who unknowingly and unintentionally threatens to take one's life? An embryo sometimes threatens the life of the mother. Does she have a right to take its life? What about an unwitting carrier of the Ebola virus - do we have a right to terminate her life? For that matter, do we have a right to terminate her life even if there is nothing she could have done about it had she known about her condition?

The Right to Terminate One's Life

There are many ways to terminate one's life: self sacrifice, avoidable martyrdom, engaging in life risking activities, refusal to prolong one's life through medical treatment, euthanasia, overdosing and self inflicted death that is the result of coercion. Like suicide, in all these - bar the last - a foreknowledge of the risk of death is present coupled

with its acceptance. Does one have a right to take one's life?

The answer is: it depends. Certain cultures and societies encourage suicide. Both Japanese kamikaze and Jewish martyrs were extolled for their suicidal actions. Certain professions are knowingly life-threatening - soldiers, firemen, policemen. Certain industries - like the manufacture of armaments, cigarettes, and alcohol - boost overall mortality rates.

In general, suicide is commended when it serves social ends, enhances the cohesion of the group, upholds its values, multiplies its wealth, or defends it from external and internal threats. Social structures and human collectives - empires, countries, firms, bands, institutions - often commit suicide. This is considered to be a healthy process.

Thus, suicide came to be perceived as a social act. The flip-side of this perception is that life is communal property. Society has appropriated the right to foster suicide or to prevent it. It condemns individual suicidal entrepreneurship. Suicide, according to Thomas Aquinas, is unnatural. It harms the community and violates God's property rights.

In Judeo-Christian tradition, God is the owner of all souls. The soul is on deposit with us. The very right to use it, for however short a period, is a divine gift. Suicide, therefore, amounts to an abuse of God's possession. Blackstone, the venerable codifier of British Law, concurred. The state, according to him, has a right to prevent and to punish suicide and attempted suicide. Suicide is self-murder, he wrote, and, therefore, a grave felony. In certain paternalistic countries, this still is the case.

The Right to Have One's Life Terminated

The right to have one's life terminated at will (euthanasia), is subject to social, ethical, and legal strictures. In some countries - such as the Netherlands - it is legal (and socially acceptable) to have one's life terminated with the help of third parties given a sufficient deterioration in the quality of life and given the imminence of death. One has to be of sound mind and will one's death knowingly, intentionally, repeatedly, and forcefully.

II. **Issues in the Calculus of Rights**

The Hierarchy of Rights

The right to life supersedes - in Western moral and legal systems - all other rights. It overrules the right to one's body, to comfort, to the avoidance of pain, or to ownership of property. Given such lack of equivocation, the amount of dilemmas and controversies surrounding the right to life is, therefore, surprising.

When there is a clash between equally potent rights - for instance, the conflicting rights to life of two people - we can decide among them randomly (by flipping a coin, or casting dice). Alternatively, we can add and subtract rights in a somewhat macabre arithmetic.

Thus, if the continued life of an embryo or a fetus threatens the mother's life - that is, assuming, controversially, that both of them have an equal right to life - we can decide to kill the fetus. By adding to the mother's right to life her right to her own body we outweigh the fetus' right to life.

The Difference between Killing and Letting Die

Counterintuitively, there is a moral gulf between killing (taking a life) and letting die (not saving a life). The right not to be killed is undisputed. There is no right to have one's own life saved. Where there is a right - and only where there is one - there is an obligation. Thus, while there is an obligation not to kill - there is no obligation to save a life.

Killing the Innocent

The life of a Victim (V) is sometimes threatened by the continued existence of an innocent person (IP), a person who cannot be held guilty of V's ultimate death even though he caused it. IP is not guilty of dispatching V because he hasn't intended to kill V, nor was he aware that V will die due to his actions or continued existence.

Again, it boils down to ghastly arithmetic. We definitely should kill IP to prevent V's death if IP is going to die anyway - and shortly. The remaining life of V, if saved, should exceed the remaining life of IP, if not killed. If these conditions are not met, the rights of IP and V should be weighted and calculated to yield a decision (See "Abortion and the Sanctity of Human Life" by Baruch A. Brody).

Utilitarianism - a form of crass moral calculus - calls for the maximization of utility (life, happiness, pleasure). The lives, happiness, or pleasure of the many outweigh the life, happiness, or pleasure of the few. If by killing IP we save the lives of two or more people and there is no other way to save their lives - it is morally permissible.

But surely V has right to self defence, regardless of any moral calculus of rights? Not so. Taking another's life to save one's own is rarely justified, though such behaviour

cannot be condemned. Here we have the flip side of the confusion we opened with: understandable and perhaps inevitable behaviour (self defence) is mistaken for a moral right.

If I were V, I would kill IP unhesitatingly. Moreover, I would have the understanding and sympathy of everyone. But this does not mean that I had a right to kill IP.

Which brings us to September 11.

Collateral Damage

What should prevail: the imperative to spare the lives of innocent civilians - or the need to safeguard the lives of fighter pilots? Precision bombing puts such pilots at great risk. Avoiding this risk usually results in civilian casualties ("collateral damage").

This moral dilemma is often "solved" by applying - explicitly or implicitly - the principle of "over-riding affiliation". We find the two facets of this principle in Jewish sacred texts: "One is close to oneself" and "Your city's poor denizens come first (with regards to charity)".

Some moral obligations are universal - thou shalt not kill. They are related to one's position as a human being. Other moral values and obligations arise from one's affiliations. Yet, there is a hierarchy of moral values and obligations. The ones related to one's position as a human being are, actually, the weakest.

They are overruled by moral values and obligations related to one's affiliations. The imperative "thou shalt not kill (another human being)" is easily over-ruled by the moral obligation to kill for one's country. The imperative "thou shalt not steal" is superseded by one's moral

obligation to spy for one's nation.

This leads to another startling conclusion:

There is no such thing as a self-consistent moral system. Moral values and obligations often contradict each other and almost always conflict with universal moral values and obligations.

In the examples above, killing (for one's country) and stealing (for one's nation) are moral obligations. Yet, they contradict the universal moral value of the sanctity of life and the universal moral obligation not to kill. Far from being a fundamental and immutable principle - the right to life, it would seem, is merely a convenient implement in the hands of society.

Love (as Pathology)

The unpalatable truth is that falling in love is, in some ways, indistinguishable from a severe pathology. Behavior changes are reminiscent of psychosis and, biochemically speaking, passionate love closely imitates substance abuse. Appearing in the BBC series Body Hits on December 4, 2002 Dr. John Marsden, the head of the British National Addiction Center, said that love is addictive, akin to cocaine and speed. Sex is a "booby trap", intended to bind the partners long enough to bond.

Using functional Magnetic Resonance Imaging (fMRI), Andreas Bartels and Semir Zeki of University College in London showed that the same areas of the brain are active when abusing drugs and when in love. The prefrontal cortex - hyperactive in depressed patients - is inactive when besotted. How can this be reconciled with the low levels of serotonin that are the telltale sign of both

depression and infatuation - is not known.

Other MRI studies, conducted in 2006-7 by Dr. Lucy Brown, a professor in the department of neurology and neuroscience at the Albert Einstein College of Medicine in New York, and her colleagues, revealed that the caudate and the ventral tegmental, brain areas involved in cravings (e.g., for food) and the secretion of dopamine, are lit up in subjects who view photos of their loved ones. Dopamine is a neurotransmitter that affects pleasure and motivation. It causes a sensation akin to a substance-induced high.

But is it erotic lust or is it love that brings about these cerebral upheavals?

As distinct from love, lust is brought on by surges of sex hormones, such as testosterone and estrogen. These induce an indiscriminate scramble for physical gratification. In the brain, the hypothalamus (controls hunger, thirst, and other primordial drives) and the amygdala (the locus of arousal) become active. Attraction transpires once a more-or-less appropriate object is found (with the right body language and speed and tone of voice) and results in a panoply of sleep and eating disorders.

A recent study in the University of Chicago demonstrated that testosterone levels shoot up by one third even during a casual chat with a female stranger. The stronger the hormonal reaction, the more marked the changes in behavior, concluded the authors. This loop may be part of a larger "mating response". In animals, testosterone provokes aggression and recklessness. The hormone's readings in married men and fathers are markedly lower than in single males still "playing the field".

Still, the long-term outcomes of being in love are lustful. Dopamine, heavily secreted while falling in love, triggers the production of testosterone and sexual attraction then kicks in.

Helen Fisher of Rutger University suggests a three-phased model of falling in love. Each stage involves a distinct set of chemicals. The BBC summed it up succinctly and sensationally: "Events occurring in the brain when we are in love have similarities with mental illness".

Moreover, we are attracted to people with the same genetic makeup and smell (pheromones) of our parents. Dr Martha McClintock of the University of Chicago studied feminine attraction to sweaty T-shirts formerly worn by males. The closer the smell resembled her father's, the more attracted and aroused the woman became. Falling in love is, therefore, an exercise in proxy incest and a vindication of Freud's much-maligned Oedipus and Electra complexes.

Writing in the February 2004 issue of the journal NeuroImage, Andreas Bartels of University College London's Wellcome Department of Imaging Neuroscience described identical reactions in the brains of young mothers looking at their babies and in the brains of people looking at their lovers.

"Both romantic and maternal love are highly rewarding experiences that are linked to the perpetuation of the species, and consequently have a closely linked biological function of crucial evolutionary importance" - he told Reuters.

This incestuous backdrop of love was further demonstrated by psychologist David Perrett of the

University of St Andrews in Scotland. The subjects in his experiments preferred their own faces - in other words, the composite of their two parents - when computer-morphed into the opposite sex.

Body secretions play a major role in the onslaught of love. In results published in February 2007 in the Journal of Neuroscience, researchers at the University of California at Berkeley demonstrated convincingly that women who sniffed androstadienone, a signaling chemical found in male sweat, saliva, and semen, experienced higher levels of the hormone cortisol. This results in sexual arousal and improved mood. The effect lasted a whopping one hour.

Still, contrary to prevailing misconceptions, love is mostly about negative emotions. As Professor Arthur Aron from State University of New York at Stonybrook has shown, in the first few meetings, people misinterpret certain physical cues and feelings - notably fear and thrill - as (falling in) love. Thus, counterintuitively, anxious people - especially those with the "serotonin transporter" gene - are more sexually active (i.e., fall in love more often).

Obsessive thoughts regarding the Loved One and compulsive acts are also common. Perception is distorted as is cognition. "Love is blind" and the lover easily fails the reality test. Falling in love involves the enhanced secretion of b-Phenylethylamine (PEA, or the "love chemical") in the first 2 to 4 years of the relationship.

This natural drug creates an euphoric high and helps obscure the failings and shortcomings of the potential mate. Such oblivion - perceiving only the spouse's good sides while discarding her bad ones - is a pathology akin to the primitive psychological defense mechanism known as "splitting". Narcissists - patients suffering from the

Narcissistic Personality Disorder - also Idealize romantic or intimate partners. A similar cognitive-emotional impairment is common in many mental health conditions.

The activity of a host of neurotransmitters - such as Dopamine, Adrenaline (Norepinephrine), and Serotonin - is heightened (or in the case of Serotonin, lowered) in both paramours. Yet, such irregularities are also associated with Obsessive-Compulsive Disorder (OCD) and depression.

It is telling that once attachment is formed and infatuation gives way to a more stable and less exuberant relationship, the levels of these substances return to normal. They are replaced by two hormones (endorphins) which usually play a part in social interactions (including bonding and sex) - Oxytocin (the "cuddling chemical") and Vasopressin. Oxytocin facilitates bonding. It is released in the mother during breastfeeding, in the members of the couple when they spend time together - and when they sexually climax.

Love, in all its phases and manifestations, is an addiction, probably to the various forms of internally secreted norepinephrine, such as the aforementioned amphetamine-like PEA. Love, in other words, is a form of substance abuse. The withdrawal of romantic love has serious mental health repercussions.

A study conducted by Dr. Kenneth Kendler, professor of psychiatry and director of the Virginia Institute for Psychiatric and Behavioral Genetics, and others, and published in the September 2002 issue of ***Archives of General Psychiatry***, revealed that breakups often lead to depression and anxiety. Other, fMRI-based studies, demonstrated how the insular cortex, in charge of

experiencing pain, became active when subjects viewed photos of former loved ones.

Still, love cannot be reduced to its biochemical and electrical components. Love is not tantamount to our bodily processes - rather, it is the way we ***experience*** them. Love is how we interpret these flows and ebbs of compounds using a higher-level language. In other words, love is pure poetry.

M

Marriage

Despite all the fashionable theories of marriage, the narratives and the feminists, the reasons to engage in marriage largely remain the same. True, there have been role reversals and new stereotypes have cropped up. But the biological, physiological and biochemical facts were less amenable to modern criticisms of culture. Men are still men and women are still women in more than one respect.

Men and women marry for the same reasons:

The Sexual Dyad – formed due to sexual attraction and in order to secure a stable, consistent and permanently available source of sexual gratification.

The Economic Dyad – To form a functioning economic unit within which the economic activities of the members of the dyad and of additional entrants will be concentrated. The economic unit generates more wealth than it consumes and the synergy between its members is likely to lead to gains in production and in productivity relative to individual efforts and investment.

The Social Dyad – The members of the couple bond as a result of implicit or explicit, direct, or indirect social pressure. This pressure can manifest itself in numerous forms. In Judaism, a person cannot belong to some religious vocations, unless he is married. This is economic pressure. In most human societies, avowed bachelors are considered to be socially deviant and abnormal. They are condemned by society, ridiculed, shunned and isolated,

effectively ex-communicated. Partly to avoid these sanctions and partly to enjoy the warmth provided by conformity and acceptance, couples marry. Today, a myriad of lifestyles is on offer. The old fashioned, nuclear marriage is one of many variants. Children are reared by single parents. Homosexual couples abound. But in all this turbulence, a pattern is discernible : almost 95% of the adult population gets married ultimately. They settle into a two-member arrangement, whether formalized and sanctioned religiously or legally – or not.

The Companionship Dyad – Formed by adults in search of sources of long-term and stable support, emotional warmth, empathy, care, good advice and intimacy. The members of these couples tend to define themselves as each other's best friends.

It is folk wisdom to state that the first three types of dyad arrangements suffer from instability. Sexual attraction wanes and is replaced by sexual attrition in most cases. This could lead to the adoption of non-conventional sexual behaviour patterns (sexual abstinence, group sex, couple swapping, etc.) – or to recurrent marital infidelity. Economics are not sufficient grounds for a lasting relationship, either. In today's world, both partners are potentially financially independent. This new found autonomy corrodes the old patriarchal-domineering-disciplinarian pattern of relationship. It is replaced by a more balanced, business like, version with children and the couple's welfare and life standard as the products. Marriages based solely on these considerations and motivations are as easy to dismantle and as likely to unravel as is any other business collaboration. Social pressures are a potent maintainer of family cohesiveness and apparent stability. But – being enforced from the

outside – it resembles detention rather than a voluntary arrangement, with the same level of happiness to go with it. Moreover, social norms, peer pressure, social conformity – cannot be relied upon to fulfil the roles of stabilizer and shock absorber reliably. Norms change, peer pressure can adversely influence the survival of the marriage ("If all my friends are divorced and apparently content, why shouldn't I try it, too ?").

It is only the companionship dyad, which appears to be enduring. Friendships deepen with time. While sex deteriorates, economic motives are reversible or voidable, and social norms are fickle – companionship, like wine, gets better with time. Even when planted on the most desolate land, under the most difficult and insidious circumstances – this obdurate seed sprouts and blossoms. "Matchmaking is done in heaven" goes the old Jewish saying but Jewish matchmakers were not averse to lending the divine process a hand. After closely scrutinizing the background of both candidates – male and female – a marriage was pronounced. In other cultures, marriages were arranged by prospective or actual fathers without asking for the embryos or the toddlers' consent.

The surprising fact is that arranged marriages last much longer than those, which are, ostensibly, the result of romantic love. Moreover: the longer a couple cohabitates prior to the marriage, the higher the likelihood of divorce. So, romantic love and cohabitation ("getting to know each other better") are negative precursors and predictors of marital longevity, contrary to commonsense.

Companionship grows out of friction within a formal arrangement, which is devoid of "escape clauses". In marriages where divorce is not an option (due to prohibitive economic or social costs or because of legal

impossibility) – companionship will grudgingly develop and with it contentment, if not happiness. Companionship is the offspring of pity and empathy and shared events and fears and common suffering and the wish to protect and to shield and habit forming. Sex is fire – companionship is old slippers: comfortable, static, useful, warm, secure. We get attached very quickly and very thoroughly to that with which we are in constant touch. This is a reflex that has to do with survival. We attach to other mothers and have our mothers attach to us. In the absence of social interactions, we die younger. We need to bond and to create dependency in others.

The marital cycle is composed of euphorias and dysphorias (which are more of the nature of panic). They are the source of our dynamism in seeking out mates, copulating, coupling (marrying) and reproducing. The source of these changing moods is to be found in the meaning that we attach to our marriages. They constitute the real, irrevocable, irreversible and serious entry into adult society. Previous rites of passage (like the Jewish Bar Mitzvah, the Christian Communion and more exotic rites elsewhere) prepare us only partially to the shock of realizing that we are about to emulate our parents.

During the first years of our lives, we tend to view our parents as omnipotent, omniscient, and omnipresent demigods (or complete gods). Our perception of them, of ourselves and of the world is magical. All are entangled, constantly interacting, identity interchanging entities. Our parents are idealized and, then, as we get disillusioned, they are internalized to become the first and most important among the myriad of inner voices that guide our lives. As we grow up (adolescence) we rebel against our parents (in the final phases of identity formation) and then

learn to accept them and to resort to them in times of need. But the primordial gods of our infancy never die, nor do they lie dormant. They lurk in our superego, conducting an incessant dialogue with the other structures of our personality. They constantly criticize and analyse, make suggestions and reproach. The hiss of these voices is the background radiation of our personal big bang.

Thus, to get married, is to become gods, to commit sacrilege, to violate the very existence of our mother and father, to defile the inner sanctum of our formative years. This is a rebellion so momentous, so all encompassing, touching upon the very foundation of our personality – that we shudder in anticipation of the imminent and, no doubt, horrible punishment that awaits us for being so presumptuous and iconoclastic. This, indeed, is the first dysphoria, which accompanies our mental preparations. Preparedness is achieved at a cost of great consternation and the activation of a host of primitive defence mechanisms, which lay dormant hitherto. We deny, we regress, we repress, we project – to no avail. The battle is waged and it is horrific to behold. Luckily, only its echoes reach our consciousness and only in our dreams does it find a fuller (though more symbol laden) expression.

This self-induced panic is the result of a conflict. On the one hand, the person knows that it is absolutely life threatening to remain alone (both biologically and psychologically). A feeling of urgency emerges which propels the person with a great thrust to find a mate. On the other hand, there is this feeling of impending disaster, that he is doing something wrong, that an act of blasphemy and sacrilege is in the making. Getting married is the most terrifying rite of passage. The reaction is to confine oneself to known territories. The terra cognita of

one's neighbourhood, country, language, race, culture, language, background, profession, social stratum, education. The individual defines himself by belonging to these groups. They imbue him with feelings of security and firmness. It is to them that he applies in his quest to find a mate. There, in the confidence of yore, he seeks to find the security of morrow. Solace can be found in familiar grounds. The panicked person can be calmed and restored among his peers and (mental, economic, social) brethren. No wonder that more than 80% of the marriages take place among members of the same social class, profession, race, creed and breed. True: the chances to come across a mate are bigger within these groups and associations – but the more predominant reason is the comfort that it provides. The dysphoria is replaced by an euphoria.

This is the euphoria, which naturally accompanies any triumph in life. Overcoming the panic is such a triumph and not a mean one at that. Subduing the internal tyrants (or guides, depending on the character of the primary objects) of yesteryear qualifies the young adult to become one himself. He cannot become a parent unless and until he eradicates his parents. This is patricide and matricide committed with great trepidation and pain. But the victory is rewarding all the same and it leads to feelings of renewed vigour, new-found optimism, sensations of omnipotence and other traces of magical thinking. The adult is ready to court his mate, woo her, hypnotize her into being his. He is full of the powers of life, of hormones, of energy. He gushes forth, he resounds with the tintinnabulation's of a better future, his eyes glint, his speech revives. In short, he is immersed in romantic love. Being a suitor is a full time emotional job. The chances of success are enhanced the more mentally and emotionally

available is the youth, the less burdened he is with past unresolved conflicts. The more successfully resolved the previous, dysphoric phase – the more vigorous the ensuing euphoric one and the bigger the chances of mating, generation and reproduction.

But our conflicts are never really put to eternal rest. They lie dormant in the waiting. The next anti-climatic dysphoric phase transpires when the attempts to secure (the consent of) a mate are met with success. It is easier and more satisfying to dream. Fighting for a cause is always preferable to the dreariness of materializing it. Mundane routine is the enemy of love and of optimism. This is where all dreams end and harsh reality intrudes with its uncompromising demands. The assent of the future spouse forces the youth to move forward in a path which grows irreversible and ominous as he progresses. The emotional investment is about to acquire economic and social dimensions. The weight is growing heavier, the commitment deeper, the escape remoter, the end inevitable. The person feels trapped, shackled, threatened. His newfound stability flounders. He staggers along a way of no return leading to what looks like a dead end. The strength of these negative emotions depends, to a very large extent, on the parental models of the individual and on the kind of family life that he experienced. The worse the earlier (and only) available example – the mightier the sense of entrapment and resulting paranoia and backlash.

But most people overcome this stage fright and proceed to formalize a relationship. They get married in a religious institution, or in a civil court, or sign a contract, or make their own arrangements. The formality resides in the institutionalization of the relationship – not necessarily in the choice of the legal host. This decision, this leap of

faith is the corridor, which leads to the palatial hall of post-nuptial euphoria.

This time the euphoria is mostly a social reaction. The new status (just married) bears a cornucopia of social rewards and incentives, some of them enshrined in legislation. Economic benefits, social approval, familial support, the envious reactions of the younger, the expectations and joys of marriage (freely available sex, children, lack of parental or societal control, newly experienced unrestrained and almost unconstrained freedoms). All these infuse the person with another magical bout of feelings of omnipotence. The control that he exercises over his "lebensraum", over his spouse, over his life is translated into a fountain of mental forces emanating from the person's very being. He feels confidence, his self esteem skyrockets, he sets high goals and seriously intends to achieve them. To him, everything is possible, now that he is left to his own devices and is supported by his mate. With luck and the right partner, this frame of mind can last and be prolonged. However, as life's disappointments accumulate, obstacles mount, the possible sorted out from the improbable and time inexorably passes – the feeling of well being and of willingness to take on the world and its challenges abates. The reserves of energy and determination dwindle. Gradually, the person slides into a dysphoric (even anhedonic or depressed) mood which colours his entire life.

The coloration stops at nothing. The routines of his life, their mundane attributes, the contrast between the glamour of our dreams (however realistically construed) and the reality of our day to day existence – these erode his previous horizon. It tends to shrink and imprison him

in what looks like a life sentence. He feels suffocated and in his bitterness and agony, in his fear of entrapment, he lashes at his spouse. She represents to him this dead end situation. Had it not been for this new responsibility – he would not have let his life atrophy thus. Thoughts of breaking loose, of going back to the parental nest, of revoking the arrangements agreed upon begin to frequent the troubled mind and to intrude upon al planning. Dismantling the existing is a frightening prospect. Again, panic sets it. Conflict rears its ugly head. Cognitive dissonance abounds. Inner turmoil leads to irresponsible, self-defeating and self-destructive behaviour. A lot of marriages end here. Those that survive do so because of children.

In his quest for an outlet, a solution, a release of the bottled tensions, an exit from numbing boredom, from professional inertia and "death" – both members of the couple (providing they still possess the minimal wish to "save" the marriage) hit upon the same idea but from different directions. The woman finds it an attractive and efficient way of securing the bonding, fastening the relationship and transforming it into a long-term commitment. Bringing a child to the world is perceived by her to be a "double whammy" (partly because of social and cultural conditioning during the socialization process). On the one hand, it is in all likelihood the glue to cement the hitherto marriage of fun or of convenience. On the other, it is the ultimate manifestation of her femininity. Children are, therefore, brought to the world as an insurance policy against the disintegration of their parents' relationships. Love and attachment follow later.

The male reaction is more compounded. At first, the child is (at least unconsciously) perceived to be an extension of

the state of entrapment and stagnation. The man realizes that a child will only "drag him deeper" into the quagmire. The quicksand characteristics of his life seem to be only amplified by this new entrant. The dysphoria deepens and matures into full-fledged panic. It then subsides and gives way to a sense of awe and wonder. As it increases, it becomes all-pervasive. A psychedelic feeling of being part parent (to the child) and part child (to his own parents) ensues. The birth of the child and his first stages of development only serve to deepen this odd sensation.

Child rearing is a difficult task. It is time and energy consuming. It is emotionally taxing. It denies the parent long obtained achievements and long granted rights (such as privacy or intimacy or self-indulgence or even sleep). It is a full-blown crisis and trauma with potentially the severest consequences. The strain on the relationship of the parents in enormous. They either completely break down – or are revived by the common challenge and hardships. A period of collaboration and reciprocity, of mutual support and increasing love follows. An euphoric phase sets in. Everything else pales besides the little miracle. The child becomes the centre of Narcissistic feelings, of hopes and fears, the heart of an emotional tornado. So much is vested and invested in him and, initially, the child gives so much in return that it blots away the daily problems, tedious procedures, failures, disappointments and aggravations. But this role of his is temporary. The more autonomous a child becomes, the more knowledgeable, the less innocent – the less rewarding, the more frustrating, the sadder the scene, the more dysphoric. The children's adolescence, the dysfunction of a couple, the members of which grew apart, developed separately and are estranged – set the scenery and pave the way to the next major dysphoria: the

midlife crisis.

This, essentially, is a crisis of reckoning, of inventory taking, a disillusionment, a realization and assimilation of one's mortality. The person looks back and sees how little he has achieved, how short the time left, how unrealistic his expectations were and are, how alienated he is from his society, his country, his culture, his closest, how ill-equipped he is to cope with all this and how irrelevant and unhelpful is marriage is. To him, it is all a fake, a Potemkin village, a facade behind which rot and corruption have consumed his life and corroded his vitality. This seems to be a last chance to recuperate, to recover lost ground, to strike one more time. Aided by others' youth (a young lover, students, his own children, a young partner or consultant, a start up company) the person tries to recreate his beginnings in a vain effort to make amends, not to commit the same mistakes twice. This crisis is exacerbated by the "empty nest" syndrome (as children grow up and live the parental home). A major topic of consensus, a catalyst of interaction between the members of the couple thus disappears. The vacuity of the relationship, the gaping hole formed by the termites of a thousand marital discords is revealed. It is the couple's chance to fill it in with empathy and mutual support. Most fail, however. They discover that they lost faith in their powers to rejuvenate each other. They are suffocated by fumes of grudges, regrets and sorrows. They want out into a fresher (younger) atmosphere. And out they go. Those who do remain, revert to accommodation rather than to love, to co-existence rather to experimentation, to arrangements of convenience rather to revival. It is a sad sight to behold. As biological decay sets in, the couple heads into the ultimate dysphoria: ageing and death.

Meaning

People often confuse satisfaction or pleasure with meaning. It is one thing to ask "How" (what Science does), another to seek an answer to "Why" (a teleological quest in most cases) and still different to contemplate the "What for". For instance: people often do something because it gives them pleasure or satisfaction – however this does not endow the act with meaning. Meaningless things can be – and many times, are – pleasant and satisfying.

A prime example is human games. Games are structured, they are governed by rules and represent the results of negotiations, analysis, synthesis and forecasting. They please and satisfy. Yet, a few will dispute their meaninglessness.

Games are useful. They teach and prepare us for real life situations. Sometimes, they bring in their wake fame, status, money, the ability to influence the real world. And even this does not make them meaningful.

It is easy to answer HOW people play games. Specify the rules of the game or observe it long enough, until the rules become apparent – and you have the answer.

It is easy to answer WHAT FOR do people play games. Pleasure, satisfaction, money, fame, learning, simulating real life experiences in anticipation and preparation for them.

But al this does not draw us an inch closer to the answer to the question:

WHAT IS THE MEANING OF GAMES?

For meaning to exist, we must have the following (cumulating) elements:

a. A relationship between at least two distinctive (at least partially mutually exclusive) entities (space-time is the result of such a relationship);

b. This relationship must manifest itself as the ability to map important parts of the entities unto each other ("Important" – without which the entity is not the same, an identity element);

c. That one of the entities should be larger than the other in some important sense. One of the entities must be physically bigger, older, more encompassing, mappable to more entities, etc.;

d. That there be an interpreter to discern and understand the relationship between the entities (therefore, an "intelligent" interpreter);

e. That such observations would lead the interpreter (potentially) to explain and to predict an important facet of the identity and of the behaviour of one of the entities (usually, in terms of the other, within the context and while using the laws of mathematical logic);

f. That the understanding of a "Meaning" will provoke in a human observer an emotional reaction and in a non-human observer, an alteration in its information content and / or in its behaviour;

g. That the "Meaning" will be invariant (not conjectural and not covariant) in every sense: physical and cultural.

The Meaning of Life must also adhere to these criteria:

a. As humans, we are distinct entities, largely mutually exclusive (though genetic material is shared and the socialization process homogenizes minds). We are related to the outside world and thus satisfy the Two Entities requirement.

b. Parts of the world can be mapped to us and vice versa (think about the representation of the world in our minds, for instance). The ancients believed in isomorphism: they mapped, one on one, features and attributes of entities in the world to one another. This is the source of certain therapies (acupuncture).

c. We are related to bigger entities (the physical universe, our history, God) – some of them "objective – ontological", others "subjective-epistemological". Some of them are even infinitely larger and, potentially, bear infinite meaning.

d. We are intelligent interpreters. We are, however, aware of the circular argument involved in observing ourselves and our relationships with other entities. This is why we are looking for other intelligent observers – preferably of a higher order of intelligence.

e. This has been the obsession of the human race: trying to decipher, understand, analyse and predict one entity in terms of others. This is the best definition of Science and Religion (though there have been other strains of human intellectual pursuits).

f. Every glimpse of ostensible meaning provokes great emotional turbulence in humans. The

situation is different with machines, naturally. When we discuss Artificial Intelligence, we again confuse Meaning with Directional (teleological) behaviour. A computer does something not because it means anything to it, not even because it "wants" anything. A computer does something because it cannot do otherwise and because we make it do it. Arguably, the same goes for animals (at least those belonging to the lower orders). Only WE, the intelligent observers, can discern direction, cause and effect – and, ultimately, meaning (however limited – see the end of this Article).

g. This is the big human failure: all the "Meanings" that we divined hitherto are of the covariant, conjectural, dependent, circumstantial types. We can, therefore, safely say that humanity has not come across one meaning yet. Since the above condition must ALL co-exist for Meaning to manifest – human existence is meaningless.

For a meaning to arise – an observer must exist (and satisfy a few conditions). This raises the well-founded suspicion that meaning is observer-dependent (though invariant). Put differently, it seems that meaning resides with the observer rather than with the observed. This tallies nicely with certain interpretations of Quantum Mechanics. It also leads to the important philosophical conclusion that in a meaningful world – the division between observer and observed is critical. And vice versa: for a meaningful world to exist, we must have a separation of the observed from the observer.

A second conclusion is that meaning – being the result of interaction between entities – must be limited to these

entities. It cannot transcend them. This means that it can never be invariant in the purest sense, it will always have a "privileged frame of reference".

In other words, meaning can never exists. The Universe and all its phenomena are meaningless.

Measurement Problem (Decoherence)

Arguably the most intractable philosophical question attached to Quantum Mechanics (QM) is that of Measurement. The accepted (a.k.a. Copenhagen) Interpretation of QM says that the very act of sentient measurement determines the outcome of the measurement in the quantum (microcosmic) realm. The wave function (which describes the co-existing, superpositioned, states of the system) "collapses" following an act of measurement.

It seems that just by knowing the results of a measurement we determine its outcome, determine the state of the system and, by implication, the state of the Universe as a whole. This notion is so counter-intuitive that it fostered a raging debate which has been on going for more than 7 decades now.

But, can we turn the question (and, inevitably, the answer) on its head? Is it the measurement that brings about the collapse – or, maybe, we are capable of measuring only collapsed results? Maybe our very ability to measure, to design measurement methods and instrumentation, to conceptualize and formalize the act of measurement and so on – are thus limited and "designed" as to yield only the "collapsible" solutions of the wave function which are macrocosmically stable and "objective" (known as the "pointer states")?

Most measurements are indirect - they tally the effects of the system on a minute segment of its environment. Wojciech Zurek and others proved (that even partial and roundabout measurements are sufficient to induce einselection (or environment-induced superselection). In other words, even the most rudimentary act of measurement is likely to probe pointer states.

Superpositions are notoriously unstable. Even in the quantum realm they last an infinitesimal moment of time. Our measurement apparatus is not sufficiently sensitive to capture superpositions. By contrast, collapsed (or pointer) states are relatively stable and lasting and, thus, can be observed and measured. This is why we measure only collapsed states.

But in which sense (excluding their longevity) are collapsed states measurable, what makes them so? Collapse events are not necessarily the most highly probable – some of them are associated with low probabilities, yet they still they occur and are measured.

By definition, the more probable states tend to occur and be measured more often (the wave function collapses more frequently into high probability states). But this does not exclude the less probable states of the quantum system from materializing upon measurement.

Pointer states are carefully "selected" for some purpose, within a certain pattern and in a certain sequence. What could that purpose be? Probably, the extension and enhancement of order in the Universe. That this is so can be easily substantiated by the fact that it is so. Order increases all the time.

The anthropocentric (and anthropic) view of the

Copenhagen Interpretation (conscious, intelligent observers determine the outcomes of measurements in the quantum realm) associates humans with negentropy (the decrease of entropy and the increase of order).

This is not to say that entropy cannot increase locally (and order decreased or low energy states attained). But it is to say that low energy states and local entropy increases are perturbations and that overall order in the Universe tends to increase even as local pockets of disorder are created. The overall increase of order in the Universe should be introduced, therefore, as a constraint into any QM formalism.

Yet, surely we cannot attribute an inevitable and invariable increase in order to each and every measurement (collapse). To say that a given collapse event contributed to an increase in order (as an extensive parameter) in the Universe – we must assume the existence of some "Grand Design" within which this statement would make sense.

Such a Grand Design (a mechanism) must be able to gauge the level of orderliness at any given moment (for instance, before and after the collapse). It must have "at its disposal" sensors of increasing or decreasing local and nonlocal order. Human observers are such order-sensitive instruments.

Still, even assuming that quantum states are naturally selected for their robustness and stability (in other words, for their orderliness), how does the quantum system "know" about the Grand Design and about its place within it? How does it "know" to select the pointer states time an again? How does the quantum realm give rise to the world as we know it - objective, stable, certain, robust,

predictable, and intuitive?

If the quantum system has no a-priori "awareness" of how it fits into an ever more ordered Universe – how is the information transferred from the Universe to the entangled quantum system and measurement system at the moment of measurement?

Such information must be communicated superluminally (at a speed greater than the speed of light). Quantum "decisions" are instantaneous and simultaneous – while the information about the quantum system's environment emanates from near and far.

But, what are the transmission and reception mechanisms and channels? Which is the receiver, where is the transmitter, what is the form of the information, what is its carrier (we will probably have to postulate yet another particle to account for this last one...)?

Another, no less crucial, question relates to the apparent arbitrariness of the selection process. All the "parts" of a superposition constitute potential collapse events and, therefore, can, in principle, be measured. Why is only one event measured in any given measurement? How is it "selected" to be the collapse event? Why does it retain a privileged status versus the measurement apparatus or act?

It seems that preferred states have to do with the inexorable process of the increase in the overall amount of order in the Universe. If other states were to have been selected, order would have diminished. The proof is again in the pudding: order does increase all the time – therefore, measurable collapse events and pointer states tend to increase order. There is a process of negative, order-orientated, selection: collapse events and states

which tend to increase entropy are filtered out and statistically "avoided". They are measured less.

There seems to be a guiding principle (that of the statistical increase of order in the Universe). This guiding principle cannot be communicated to quantum systems with each and every measurement because such communication would have to be superluminal. The only logical conclusion is that all the information relevant to the decrease of entropy and to the increase of order in the Universe is stored in each and every part of the Universe, no matter how minuscule and how fundamental.

It is safe to assume that, very much like in living organisms, all the relevant information regarding the preferred (order-favoring) quantum states is stored in a kind of Physical DNA (PDNA). The unfolding of this PDNA takes place in the physical world, during interactions between physical systems (one of which is the measurement apparatus).

The Biological DNA contains all the information about the living organism and is replicated trillions of times over, stored in the basic units of the organism, the cell. What reason is there to assume that nature deviated from this (very pragmatic) principle in other realms of existence? Why not repeat this winning design in quarks?

The Biological variant of DNA requires a biochemical context (environment) to translate itself into an organism – an environment made up of amino acids, etc. The PDNA probably also requires some type of context: the physical world as revealed through the act of measurement.

The information stored in the physical particle is structural because order has to do with structure. Very

much like a fractal (or a hologram), every particle reflects the whole Universe accurately and the same laws of nature apply to both. Consider the startling similarities between the formalisms and the laws that pertain to subatomic particles and black holes.

Moreover, the distinction between functional (operational) and structural information is superfluous and artificial. There is a magnitude bias here: being creatures of the macrocosm, form and function look to us distinct. But if we accept that "function" is merely what we call an increase in order then the distinction is cancelled because the only way to measure the increase in order is structurally. We measure functioning (=the increase in order) using structural methods (the alignment or arrangement of instruments).

Still, the information contained in each particle should encompass, at least, the relevant (close, non-negligible and non-cancelable) parts of the Universe. This is a tremendous amount of data. How is it stored in tiny corpuscles?

Either utilizing methods and processes which we are far even from guessing – or else the relevant information is infinitesimally (almost vanishingly) small.

The extent of necessary information contained in each and every physical particle could be somehow linked to (even equal to) the number of possible quantum states, to the superposition itself, or to the collapse event. It may well be that the whole Universe can be adequately encompassed in an unbelievably minute, negligibly tiny, amount of data which is incorporated in those quantum supercomputers that today, for lack of better understanding, we call "particles".

Technical Note

Our Universe can be mathematically described as a "matched" or PLL filter whose properties let through the collapsed outcomes of wave functions (when measured) - or the "signal". The rest of the superposition (or the other "Universes" in a Multiverse) can be represented as "noise". Our Universe, therefore, enhances the signal-to-noise ratio through acts of measurement (a generalization of the anthropic principle).

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Mental Illness

"You can know the name of a bird in all the languages of the world, but when you're finished, you'll know absolutely nothing whatever about the bird… So let's look at the bird and see what it's doing – that's what counts. I learned very early the difference between knowing the name of something and knowing something."

Richard Feynman, Physicist and 1965 Nobel Prize laureate (1918-1988)

"You have all I dare say heard of the animal spirits and how they are transfused from father to son etcetera etcetera – well you may take my word that nine parts in

ten of a man's sense or his nonsense, his successes and miscarriages in this world depend on their motions and activities, and the different tracks and trains you put them into, so that when they are once set a-going, whether right or wrong, away they go cluttering like hey-go-mad."

Lawrence Sterne (1713-1758), "The Life and Opinions of Tristram Shandy, Gentleman" (1759)

I. Overview

Someone is considered mentally "ill" if:

1. His conduct rigidly and consistently deviates from the typical, average behaviour of all other people in his culture and society that fit his profile (whether this conventional behaviour is moral or rational is immaterial), or

2. His judgment and grasp of objective, physical reality is impaired, and

3. His conduct is not a matter of choice but is innate and irresistible, and

4. His behavior causes him or others discomfort, and is

5. Dysfunctional, self-defeating, and self-destructive even by his own yardsticks.

Descriptive criteria aside, what is the ***essence*** of mental disorders? Are they merely physiological disorders of the brain, or, more precisely of its chemistry? If so, can they be cured by restoring the balance of substances and secretions in that mysterious organ? And, once

equilibrium is reinstated – is the illness "gone" or is it still lurking there, "under wraps", waiting to erupt? Are psychiatric problems inherited, rooted in faulty genes (though amplified by environmental factors) – or brought on by abusive or wrong nurturance?

These questions are the domain of the "medical" school of mental health.

Others cling to the spiritual view of the human psyche. They believe that mental ailments amount to the metaphysical discomposure of an unknown medium – the soul. Theirs is a holistic approach, taking in the patient in his or her entirety, as well as his milieu.

The members of the functional school regard mental health disorders as perturbations in the proper, statistically "normal", behaviours and manifestations of "healthy" individuals, or as dysfunctions. The "sick" individual – ill at ease with himself (ego-dystonic) or making others unhappy (deviant) – is "mended" when rendered functional again by the prevailing standards of his social and cultural frame of reference.

In a way, the three schools are akin to the trio of blind men who render disparate descriptions of the very same elephant. Still, they share not only their subject matter – but, to a counter intuitively large degree, a faulty methodology.

As the renowned anti-psychiatrist, Thomas Szasz, of the State University of New York, notes in his article ***"The Lying Truths of Psychiatry"***, mental health scholars, regardless of academic predilection, infer the etiology of mental disorders from the success or failure of treatment modalities.

This form of "reverse engineering" of scientific models is not unknown in other fields of science, nor is it unacceptable if the experiments meet the criteria of the scientific method. The theory must be all-inclusive (anamnetic), consistent, falsifiable, logically compatible, monovalent, and parsimonious. Psychological "theories" – even the "medical" ones (the role of serotonin and dopamine in mood disorders, for instance) – are usually none of these things.

The outcome is a bewildering array of ever-shifting mental health "diagnoses" expressly centred around Western civilisation and its standards (example: the ethical objection to suicide). Neurosis, a historically fundamental "condition" vanished after 1980. Homosexuality, according to the American Psychiatric Association, was a pathology prior to 1973. Seven years later, narcissism was declared a "personality disorder", almost seven decades after it was first described by Freud.

II. Personality Disorders

Indeed, personality disorders are an excellent example of the kaleidoscopic landscape of "objective" psychiatry.

The classification of Axis II personality disorders – deeply ingrained, maladaptive, lifelong behavior patterns – in the Diagnostic and Statistical Manual, fourth edition, text revision [American Psychiatric Association. DSM-IV-TR, Washington, 2000] – or the DSM-IV-TR for short – has come under sustained and serious criticism from its inception in 1952, in the first edition of the DSM.

The DSM IV-TR adopts a categorical approach, postulating that personality disorders are ***"qualitatively distinct clinical syndromes"*** (p. 689). This is widely

doubted. Even the distinction made between "normal" and "disordered" personalities is increasingly being rejected. The "diagnostic thresholds" between normal and abnormal are either absent or weakly supported.

The polythetic form of the DSM's Diagnostic Criteria – only a subset of the criteria is adequate grounds for a diagnosis – generates unacceptable diagnostic heterogeneity. In other words, people diagnosed with the same personality disorder may share only one criterion or none.

The DSM fails to clarify the exact relationship between Axis II and Axis I disorders and the way chronic childhood and developmental problems interact with personality disorders.

The differential diagnoses are vague and the personality disorders are insufficiently demarcated. The result is excessive co-morbidity (multiple Axis II diagnoses).

The DSM contains little discussion of what distinguishes normal character (personality), personality traits, or personality style (Millon) – from personality disorders.

A dearth of documented clinical experience regarding both the disorders themselves and the utility of various treatment modalities.

Numerous personality disorders are "not otherwise specified" – a catchall, basket "category".

Cultural bias is evident in certain disorders (such as the Antisocial and the Schizotypal).

The emergence of dimensional alternatives to the categorical approach is acknowledged in the DSM-IV-TR itself:

"An alternative to the categorical approach is the dimensional perspective that Personality Disorders represent maladaptive variants of personality traits that merge imperceptibly into normality and into one another" (p.689)

The following issues – long neglected in the DSM – are likely to be tackled in future editions as well as in current research. But their omission from official discourse hitherto is both startling and telling:

- The longitudinal course of the disorder(s) and their temporal stability from early childhood onwards;
- The genetic and biological underpinnings of personality disorder(s);
- The development of personality psychopathology during childhood and its emergence in adolescence;
- The interactions between physical health and disease and personality disorders;
- The effectiveness of various treatments – talk therapies as well as psychopharmacology.

III. The Biochemistry and Genetics of Mental Health

Certain mental health afflictions are either correlated with a statistically abnormal biochemical activity in the brain – or are ameliorated with medication. Yet the two ***facts*** are not ineludibly facets of ***the same*** underlying phenomenon. In other words, that a given medicine reduces or abolishes certain symptoms does not necessarily mean they were ***caused*** by the processes or substances affected by the drug administered. Causation is only one of many possible

connections and chains of events.

To designate a pattern of behaviour as a mental health disorder is a value judgment, or at best a statistical observation. Such designation is effected regardless of the facts of brain science. Moreover, correlation is not causation. Deviant brain or body biochemistry (once called "polluted animal spirits") do exist – but are they truly the roots of mental perversion? Nor is it clear which triggers what: do the aberrant neurochemistry or biochemistry cause mental illness – or the other way around?

That psychoactive medication alters behaviour and mood is indisputable. So do illicit and legal drugs, certain foods, and all interpersonal interactions. That the changes brought about by prescription are desirable – is debatable and involves tautological thinking. If a certain pattern of behaviour is described as (socially) "dysfunctional" or (psychologically) "sick" – clearly, every change would be welcomed as "healing" and every agent of transformation would be called a "cure".

The same applies to the alleged heredity of mental illness. Single genes or gene complexes are frequently "associated" with mental health diagnoses, personality traits, or behaviour patterns. But too little is known to establish irrefutable sequences of causes-and-effects. Even less is proven about the interaction of nature and nurture, genotype and phenotype, the plasticity of the brain and the psychological impact of trauma, abuse, upbringing, role models, peers, and other environmental elements.

Nor is the distinction between psychotropic substances and talk therapy that clear-cut. Words and the interaction with the therapist also affect the brain, its processes and

chemistry - albeit more slowly and, perhaps, more profoundly and irreversibly. Medicines – as David Kaiser reminds us in ***"Against Biologic Psychiatry"*** (Psychiatric Times, Volume XIII, Issue 12, December 1996) – treat symptoms, not the underlying processes that yield them.

IV. The Variance of Mental Disease

If mental illnesses are bodily and empirical, they should be invariant both temporally and spatially, across cultures and societies. This, to some degree, is, indeed, the case. Psychological diseases are not context dependent – but the pathologizing of certain behaviours is. Suicide, substance abuse, narcissism, eating disorders, antisocial ways, schizotypal symptoms, depression, even psychosis are considered sick by some cultures – and utterly normative or advantageous in others.

This was to be expected. The human mind and its dysfunctions are alike around the world. But values differ from time to time and from one place to another. Hence, disagreements about the propriety and desirability of human actions and inaction are bound to arise in a symptom-based diagnostic system.

As long as the ***pseudo-medical*** definitions of mental health disorders continue to rely exclusively on signs and symptoms – i.e., mostly on observed or reported behaviours – they remain vulnerable to such discord and devoid of much-sought universality and rigor.

V. Mental Disorders and the Social Order

The mentally sick receive the same treatment as carriers of AIDS or SARS or the Ebola virus or smallpox. They are sometimes quarantined against their will and coerced into involuntary treatment by medication, psychosurgery,

or electroconvulsive therapy. This is done in the name of the greater good, largely as a preventive policy.

Conspiracy theories notwithstanding, it is impossible to ignore the enormous interests vested in psychiatry and psychopharmacology. The multibillion dollar industries involving drug companies, hospitals, managed healthcare, private clinics, academic departments, and law enforcement agencies rely, for their continued and exponential growth, on the propagation of the concept of "mental illness" and its corollaries: treatment and research.

VI. Mental Ailment as a Useful Metaphor

Abstract concepts form the core of all branches of human knowledge. No one has ever seen a quark, or untangled a chemical bond, or surfed an electromagnetic wave, or visited the unconscious. These are useful metaphors, theoretical entities with explanatory or descriptive power.

"Mental health disorders" are no different. They are shorthand for capturing the unsettling quiddity of "the Other". Useful as taxonomies, they are also tools of social coercion and conformity, as Michel Foucault and Louis Althusser observed. Relegating both the dangerous and the idiosyncratic to the collective fringes is a vital technique of social engineering.

The aim is progress through social cohesion and the regulation of innovation and creative destruction. Psychiatry, therefore, is reifies society's preference of evolution to revolution, or, worse still, to mayhem. As is often the case with human endeavour, it is a noble cause, unscrupulously and dogmatically pursued.

Appendix - The Insanity Defense

"It is an ill thing to knock against a deaf-mute, an imbecile, or a minor. He that wounds them is culpable, but if they wound him they are not culpable." (Mishna, Babylonian Talmud)

If mental illness is culture-dependent and mostly serves as an organizing social principle - what should we make of the insanity defense (NGRI- Not Guilty by Reason of Insanity)?

A person is held not responsible for his criminal actions if s/he cannot tell right from wrong ("lacks substantial capacity either to appreciate the criminality (wrongfulness) of his conduct" - diminished capacity), did not intend to act the way he did (absent "mens rea") and/or could not control his behavior ("irresistible impulse"). These handicaps are often associated with "mental disease or defect" or "mental retardation".

Mental health professionals prefer to talk about an impairment of a "person's perception or understanding of reality". They hold a "guilty but mentally ill" verdict to be contradiction in terms. All "mentally-ill" people operate within a (usually coherent) worldview, with consistent internal logic, and rules of right and wrong (ethics). Yet, these rarely conform to the way most people perceive the world. The mentally-ill, therefore, cannot be guilty because s/he has a tenuous grasp on reality.

Yet, experience teaches us that a criminal maybe mentally ill even as s/he maintains a perfect reality test and thus is held criminally responsible (Jeffrey Dahmer comes to mind). The "perception and understanding of reality", in other words, can and does co-exist even with the severest forms of mental illness.

This makes it even more difficult to comprehend what is meant by "mental disease". If some mentally ill maintain a grasp on reality, know right from wrong, can anticipate the outcomes of their actions, are not subject to irresistible impulses (the official position of the American Psychiatric Association) - in what way do they differ from us, "normal" folks?

This is why the insanity defense often sits ill with mental health pathologies deemed socially "acceptable" and "normal" - such as religion or love.

Consider the following case:

A mother bashes the skulls of her three sons. Two of them die. She claims to have acted on instructions she had received from God. She is found not guilty by reason of insanity. The jury determined that she "did not know right from wrong during the killings."

But why exactly was she judged insane?

Her belief in the existence of God - a being with inordinate and inhuman attributes - may be irrational.

But it does not constitute insanity in the strictest sense because it conforms to social and cultural creeds and codes of conduct in her milieu. Billions of people faithfully subscribe to the same ideas, adhere to the same transcendental rules, observe the same mystical rituals, and claim to go through the same experiences. This shared psychosis is so widespread that it can no longer be deemed pathological, statistically speaking.

She claimed that God has spoken to her.

As do numerous other people. Behavior that is considered

psychotic (paranoid-schizophrenic) in other contexts is lauded and admired in religious circles. Hearing voices and seeing visions - auditory and visual delusions - are considered rank manifestations of righteousness and sanctity.

Perhaps it was the content of her hallucinations that proved her insane?

She claimed that God had instructed her to kill her boys. Surely, God would not ordain such evil?

Alas, the Old and New Testaments both contain examples of God's appetite for human sacrifice. Abraham was ordered by God to sacrifice Isaac, his beloved son (though this savage command was rescinded at the last moment). Jesus, the son of God himself, was crucified to atone for the sins of humanity.

A divine injunction to slay one's offspring would sit well with the Holy Scriptures and the Apocrypha as well as with millennia-old Judeo-Christian traditions of martyrdom and sacrifice.

Her actions were wrong and incommensurate with both human and divine (or natural) laws.

Yes, but they were perfectly in accord with a literal interpretation of certain divinely-inspired texts, millennial scriptures, apocalyptic thought systems, and fundamentalist religious ideologies (such as the ones espousing the imminence of "rupture"). Unless one declares these doctrines and writings insane, her actions are not.

we are forced to the conclusion that the murderous mother is perfectly sane. Her frame of reference is different to

ours. Hence, her definitions of right and wrong are idiosyncratic. To her, killing her babies was the right thing to do and in conformity with valued teachings and her own epiphany. Her grasp of reality - the immediate and later consequences of her actions - was never impaired.

It would seem that sanity and insanity are relative terms, dependent on frames of cultural and social reference, and statistically defined. There isn't - and, in principle, can never emerge - an "objective", medical, scientific test to determine mental health or disease unequivocally.

VIII. Adaptation and Insanity - (correspondence with Paul Shirley, MSW)

"Normal" people adapt to their environment - both human and natural.

"Abnormal" ones try to adapt their environment - both human and natural - to their idiosyncratic needs/profile.

If they succeed, their environment, both human (society) and natural is pathologized.

MinMaj Rule

In the Balkans reigns supreme the Law of the MinMaj. It is simple and it was invariably manifested throughout history. It is this: "Wars erupt whenever and wherever a country has a minority of the same ethnicity as the majority in its neighbouring country."

Consider Israel - surrounded by Arab countries, it has an Arab minority of its own, having expelled (ethnically cleansed) hundreds of thousands more. It has fought 6 wars with its neighbours and (good intentions notwithstanding) looks set to fight more. It is subjugated

to the Law of the MinMaj, enslaved by its steady and nefarious domination.

Or take Nazi Germany. World War Two was the ultimate manifestation of the MinMaj Law. German minorities throughout Europe were either used by Germany - or actively collaborated with it - to justify one Anschluss after another. Austria, Czechoslovakia, Poland, France, Russia - a parade of Big Brotherly intervention by Germany on behalf of allegedly suppressed kinfolk. Lebensraum and Volkdeutsch were twin pillars of Nazi ideology.

And, of course, there is Yugoslavia, its charred remnants agonizingly writhing in a post Kosovo world. Serbia fought Croatia and Bosnia and Kosovo to protect besieged and hysterical local Serbs. Croats fought Serbs and Bosnians to defend dilapidated Croat settlements. Albanians fought the Serbs through the good services of Kosovars in order to protect Kosovars. And the fighting is still on. This dismembered organism, once a flourishing country, dazed and scorched, still attempts to blindly strike its former members, inebriated by its own blood. Such is the power of the MinMaj.

There are three ways out from the blind alley to which the MinMaj Rule inevitably and invariably leads its adherents. One exit is through ethnic cleansing, the other via self determination, the third is in establishing a community, a majority of minorities.

Ethnic cleansing is the safest route. It is final, irreversible, just, fast, easy to carry out and preventive as much as curative. It need not be strewn with mass graves and smouldering villages. It can be done peacefully, by consent or with the use of minimal force. It can be part of

a unilateral transfer or of a bilateral exchange of population. There are many precedents - Germans in the Ukraine and in Czechoslovakia, Turks in Bulgaria, Jews in the Arab countries. None of them left willingly or voluntarily. All were the victims of pathological nostalgia, deep, disconsolate grieving and the post traumatic shock of being uprooted and objectified. But they emigrated, throngs of millions of people, planeloads, trainloads, cartloads and carloads of them and they reached their destinations alive and able to start all over again - which is more than can be said about thousands of Kosovar Albanians. Ethnic cleansing has many faces, brutality is not its integrated feature.

The Wilsonian ideal of self determination is rarely feasible or possible - though, when it is, it is far superior to any other resolution of intractable ethnic conflicts. It does tend to produce political and economic stillborns, though. Ultimately, these offspring of noble principle merge again with their erstwhile foes within customs unions, free trade agreements, currency unions. They are subsumed in other economic, political, or military alliances and gladly surrender part of that elusive golden braid, their sovereignty. Thus, becoming an independent political entity is, to most, a rite of passage, an adolescence, heralding the onset of political adulthood and geopolitical and economic maturity.

The USA and, to a lesser degree, the UK, France and Germany are fine examples of the third way. A majority of minorities united by common rules, beliefs and aspirations. Those are tension filled structures sustained by greed or vision or fear or hope and sometimes by the very tensions that they generate. No longer utopian, it is a realistic model to emulate.

It is only when ethnic cleansing is combined with self determination that a fracturing of the solutions occurs. Atrocities are the vile daughters of ideals. Armed with stereotypes - those narcissistic defence mechanisms which endow their propagators with a fleeting sense of superiority - an ethnic group defines itself negatively, in opposition to another. Self determination is employed to facilitate ethnic cleansing rather than to prevent it. Actually, it is the very act of ethnic cleansing which validates the common identity, which forms the myth and the ethos that is national history, which perpetrates itself by conferring resilience upon the newly determined and by offering a common cause and the means to feel efficient, functional and victorious in carrying it out.

There are many variants of this malignant, brutal, condemnable, criminal and inefficient form of ethnic cleansing. Bred by manic and hysterical nationalists, fed by demagogues, nourished by the hitherto deprived and humiliated - this cancerous mix of definition by negation wears many guises. It is often clad in legal attire. Israel has a Law of Return which makes an instant citizen out of every spouse of every Russian Jew while denying this privilege to Arabs born on its soil. South Africa had apartheid. Nazi Germany had the Nuremberg Laws. The Czech Republic had the infamous Benes Decrees. But ethnic cleansing can be economic (ask the Chinese in Asia and the Indians in Africa). It can be physical (Croatia, Kosovo). It has a myriad facets.

Misogyny

From a correspondence:

"I think that there is a schism between men and women. I am sorry but I am neo-Weiningerian. I fear women and

loathe them viscerally - while, in the abstract, I recognize that they are members of the human species and eligible to the same rights as men do. Still, the biological, biochemical and psychological differences between us (men versus women) are so profound - that I think that a good case can be made in favour of a theory which will assign them to another (perhaps even more advanced) species. I am heterosexual, so it has nothing to do with sexual preferences. Also I know that what I have to say will alienate and anger you. Still, I believe - as does Dr. Grey - that cross-gender communication is all but impossible. We are separated by biology, by history, by culture, by chemistry, by genetics, in short: by too much. Where we see cruelty they see communication, where we see communication they see indifference, where we see a future they see a threat, where we see a threat they see an opportunity, where we see stagnation they see security and where we see safety they see death, where we get excited they get alarmed, where we get alarmed they get bored, we love with our senses, they love with their wombs and mind, they tend to replicate, we tend to assimilate, they are Trojan horses, we are dumb Herculeses, they succumb in order to triumph, we triumph in order to succumb.

And I see no difference between the three terms that you all used. "Love", "cruelty" and "impotence" are to me three sides of the same coin. We love in order to overcome our (perceived) impotence. We burden our love with impossible dreams: to become children again. We want to be unconditionally loved and omnipotent. No wonder love invariably ends in disappointment and disillusionment. It can never fulfil our inflated expectations. This is when we become cruel. We avenge our paradise lost. We inflict upon our lover the hell that he or she fostered in us. We do so impotently because we still love, even as we fervently

hate (Freudian ambivalence). Thus we always love cruelly, impotently and desperately, the desperation of the doomed."

Moral Hazard

Risk transfer is the gist of modern economies. Citizens pay taxes to ever expanding governments in return for a variety of "safety nets" and state-sponsored insurance schemes. Taxes can, therefore, be safely described as insurance premiums paid by the citizenry. Firms extract from consumers a markup above their costs to compensate them for their business risks.

Profits can be easily cast as the premiums a firm charges for the risks it assumes on behalf of its customers - i.e., risk transfer charges. Depositors charge banks and lenders charge borrowers interest, partly to compensate for the hazards of lending - such as the default risk. Shareholders expect above "normal" - that is, risk-free - returns on their investments in stocks. These are supposed to offset trading liquidity, issuer insolvency, and market volatility risks.

The reallocation and transfer of risk are booming industries. Governments, capital markets, banks, and insurance companies have all entered the fray with ever-evolving financial instruments. Pundits praise the virtues of the commodification and trading of risk. It allows entrepreneurs to assume more of it, banks to get rid of it, and traders to hedge against it. Modern risk exchanges liberated Western economies from the tyranny of the uncertain - they enthuse.

But this is precisely the peril of these new developments. They mass manufacture moral hazard. They remove the

only immutable incentive to succeed - market discipline and business failure. They undermine the very fundaments of capitalism: prices as signals, transmission channels, risk and reward, opportunity cost. Risk reallocation, risk transfer, and risk trading create an artificial universe in which synthetic contracts replace real ones and third party and moral hazards replace business risks.

Moral hazard is the risk that the behaviour of an economic player will change as a result of the alleviation of real or perceived potential costs. It has often been claimed that IMF bailouts, in the wake of financial crises - in Mexico, Brazil, Asia, and Turkey, to mention but a few - created moral hazard.

Governments are willing to act imprudently, safe in the knowledge that the IMF is a lender of last resort, which is often steered by geopolitical considerations, rather than merely economic ones. Creditors are more willing to lend and at lower rates, reassured by the IMF's default-staving safety net. Conversely, the IMF's refusal to assist Russia in 1998 and Argentina in 2002 - should reduce moral hazard.

The IMF, of course, denies this. In a paper titled "IMF Financing and Moral Hazard", published June 2001, the authors - Timothy Lane and Steven Phillips, two senior IMF economists - state:

"... In order to make the case for abolishing or drastically overhauling the IMF, one must show ... that the moral hazard generated by the availability of IMF financing overshadows any potentially beneficial effects in mitigating crises ... Despite many assertions in policy discussions that moral hazard is a major cause of financial crises, there has been astonishingly little effort

to provide empirical support for this belief."

Yet, no one knows how to measure moral hazard. In an efficient market, interest rate spreads on bonds reflect all the information available to investors, not merely the existence of moral hazard. Market reaction is often delayed, partial, or distorted by subsequent developments.

Moreover, charges of "moral hazard" are frequently ill-informed and haphazard. Even the venerable Wall Street Journal fell in this fashionable trap. It labeled the Long Term Capital Management (LTCM) 1998 salvage - "$3.5 billion worth of moral hazard". Yet, no public money was used to rescue the sinking hedge fund and investors lost most of their capital when the new lenders took over 90 percent of LTCM's equity.

In an inflationary turn of phrase, "moral hazard" is now taken to encompass anti-cyclical measures, such as interest rates cuts. The Fed - and its mythical Chairman, Alan Greenspan - stand accused of bailing out the bloated stock market by engaging in an uncontrolled spree of interest rates reductions.

In a September 2001 paper titled "Moral Hazard and the US Stock Market", the authors - Marcus Miller, Paul Weller, and Lei Zhang, all respected academics - accuse the Fed of creating a "Greenspan Put". In a scathing commentary, they write:

"The risk premium in the US stock market has fallen far below its historic level ... (It may have been) reduced by one-sided intervention policy on the part of the Federal Reserve which leads investors into the erroneous belief that they are insured against downside risk ... This insurance - referred to as the Greenspan Put

- (involves) exaggerated faith in the stabilizing power of Mr. Greenspan."

Moral hazard infringes upon both transparency and accountability. It is never explicit or known in advance. It is always arbitrary, or subject to political and geopolitical considerations. Thus, it serves to increase uncertainty rather than decrease it. And by protecting private investors and creditors from the outcomes of their errors and misjudgments - it undermines the concept of liability.

The recurrent rescues of Mexico - following its systemic crises in 1976, 1982, 1988, and 1994 - are textbook examples of moral hazard. The Cato Institute called them, in a 1995 Policy Analysis paper, "palliatives" which create "perverse incentives" with regards to what it considers to be misguided Mexican public policies - such as refusing to float the peso.

Still, it can be convincingly argued that the problem of moral hazard is most acute in the private sector. Sovereigns can always inflate their way out of domestic debt. Private foreign creditors implicitly assume multilateral bailouts and endless rescheduling when lending to TBTF or TITF ("too big or too important to fail") countries. The debt of many sovereign borrowers, therefore, is immune to terminal default.

Not so with private debtors. In remarks made by Gary Stern, President of the Federal Reserve Bank of Minneapolis, to the 35th Annual Conference on Bank Structure and Competition, on May 1999, he said:

"I propose combining market signals of risk with the best aspects of current regulation to help mitigate the moral hazard problem that is most acute with our largest

banks ... The actual regulatory and legal changes introduced over the period-although positive steps-are inadequate to address the safety net's perversion of the risk/return trade-off."

This observation is truer now than ever. Mass-consolidation in the banking sector, mergers with non-banking financial intermediaries (such as insurance companies), and the introduction of credit derivatives and other financial innovations - make the issue of moral hazard all the more pressing.

Consider deposit insurance, provided by virtually every government in the world. It allows the banks to pay to depositors interest rates which do not reflect the banks' inherent riskiness. As the costs of their liabilities decline to unrealistic levels -banks misprice their assets as well. They end up charging borrowers the wrong interest rates or, more common, financing risky projects.

Badly managed banks pay higher premiums to secure federal deposit insurance. But this disincentive is woefully inadequate and disproportionate to the enormous benefits reaped by virtue of having a safety net. Stern dismisses this approach:

"The ability of regulators to contain moral hazard directly is limited. Moral hazard results when economic agents do not bear the marginal costs of their actions. Regulatory reforms can alter marginal costs but they accomplish this task through very crude and often exploitable tactics. There should be limited confidence that regulation and supervision will lead to bank closures before institutions become insolvent. In particular, reliance on lagging regulatory measures, restrictive regulatory and legal norms, and the ability of

banks to quickly alter their risk profile have often resulted in costly failures."

Stern concludes his remarks by repeating the age-old advice: caveat emptor. Let depositors and creditors suffer losses. This will enhance their propensity to discipline market players. They are also likely to become more selective and invest in assets which conform to their risk aversion.

Both outcomes are highly dubious. Private sector creditors and depositors have little leverage over delinquent debtors or banks. When Russia - and trigger happy Russian firms - defaulted on their obligations in 1998, even the largest lenders, such as the EBRD, were unable to recover their credits and investments.

The defrauded depositors of BCCI are still chasing the assets of the defunct bank as well as litigating against the Bank of England for allegedly having failed to supervise it. Discipline imposed by depositors and creditors often results in a "run on the bank" - or in bankruptcy. The presumed ability of stakeholders to discipline risky enterprises, hazardous financial institutions, and profligate sovereigns is fallacious.

Asset selection within a well balanced and diversified portfolio is also a bit of a daydream. Information - even in the most regulated and liquid markets - is partial, distorted, manipulative, and lagging. Insiders collude to monopolize it and obtain a "first mover" advantage.

Intricate nets of patronage exclude the vast majority of shareholders and co-opt ostensible checks and balances - such as auditors, legislators, and regulators. Enough to mention Enron and its accountants, the formerly much

vaunted firm, Arthur Andersen.

Established economic theory - pioneered by Merton in 1977 - shows that, counterintuitively, the closer a bank is to insolvency, the more inclined it is to risky lending. Nobuhiko Hibara of Columbia University demonstrated this effect convincingly in the Japanese banking system in his November 2001 draft paper titled "What Happens in Banking Crises - Credit Crunch vs. Moral Hazard".

Last but by no means least, as opposed to oft-reiterated wisdom - the markets have no memory. Russia has egregiously defaulted on its sovereign debt a few times in the last 100 years. Only seven years ago - in 1998 - it thumbed its nose with relish at tearful foreign funds, banks, and investors. Six years later, President Vladimir Putin dismantled Yukos, the indigenous oil giant and confiscated its assets, in stark contravention of the property rights of its shareholders.

Yet, Russia is besieged by investment banks and a horde of lenders begging it to borrow at concessionary rates. The same goes for Mexico, Argentina, China, Nigeria, Thailand, other countries, and the accident-prone banking system in almost every corner of the globe.

In many places, international aid constitutes the bulk of foreign currency inflows. It is severely tainted by moral hazard. In a paper titled "Aid, Conditionality and Moral Hazard", written by Paul Mosley and John Hudson, and presented at the Royal Economic Society's 1998 Annual Conference, the authors wrote:

"Empirical evidence on the effectiveness of both overseas aid and the 'conditionality' employed by donors to increase its leverage suggests disappointing results

over the past thirty years ... The reason for both failures is the same: the risk or 'moral hazard' that aid will be used to replace domestic investment or adjustment efforts, as the case may be, rather than supplementing such efforts."

In a May 2001 paper, tellingly titled "Does the World Bank Cause Moral Hazard and Political Business Cycles?" authored by Axel Dreher of Mannheim University, he responds in the affirmative:

"Net flows (of World Bank lending) are higher prior to elections ... It is shown that a country's rate of monetary expansion and its government budget deficit (are) higher the more loans it receives ... Moreover, the budget deficit is shown to be larger the higher the interest rate subsidy offered by the (World) Bank."

Thus, the antidote to moral hazard is not this legendary beast in the capitalistic menagerie, market discipline. Nor is it regulation. Nobel Prize winner Joseph Stiglitz, Thomas Hellman, and Kevin Murdock concluded in their 1998 paper - "Liberalization, Moral Hazard in Banking, and Prudential Regulation":

"We find that using capital requirements in an economy with freely determined deposit rates yields ... inefficient outcomes. With deposit insurance, freely determined deposit rates undermine prudent bank behavior. To induce a bank to choose to make prudent investments, the bank must have sufficient franchise value at risk ... Capital requirements also have a perverse effect of increasing the bank's cost structure, harming the franchise value of the bank ... Even in an economy where the government can credibly commit not to offer deposit insurance, the moral hazard problem still may

not disappear."

Moral hazard must be balanced, in the real world, against more ominous and present threats, such as contagion and systemic collapse. Clearly, some moral hazard is inevitable if the alternative is another Great Depression. Moreover, most people prefer to incur the cost of moral hazard. They regard it as an insurance premium.

Depositors would like to know that their deposits are safe or reimbursable. Investors would like to mitigate some of the risk by shifting it to the state. The unemployed would like to get their benefits regularly. Bankers would like to lend more daringly. Governments would like to maintain the stability of their financial systems.

The common interest is overwhelming - and moral hazard seems to be a small price to pay. It is surprising how little abused these safety nets are - as Stephane Pallage and Christian Zimmerman of the Center for Research on Economic Fluctuations and Employment in the University of Quebec note in their paper "Moral Hazard and Optimal Unemployment Insurance".

Martin Gaynor, Deborah Haas-Wilson, and William Vogt, cast in doubt the very notion of "abuse" as a result of moral hazard in their NBER paper titled "Are Invisible Hands Good Hands?":

"Moral hazard due to health insurance leads to excess consumption, therefore it is not obvious that competition is second best optimal. Intuitively, it seems that imperfect competition in the healthcare market may constrain this moral hazard by increasing prices. We show that this intuition cannot be correct if insurance markets are competitive.

A competitive insurance market will always produce a contract that leaves consumers at least as well off under lower prices as under higher prices. Thus, imperfect competition in healthcare markets can not have efficiency enhancing effects if the only distortion is due to moral hazard."

Whether regulation and supervision - of firms, banks, countries, accountants, and other market players - should be privatized or subjected to other market forces - as suggested by the likes of Bert Ely of Ely & Company in the Fall 1999 issue of "The Independent Review" - is still debated and debatable. With governments, central banks, or the IMF as lenders and insurer of last resort - there is little counterparty risk. Or so investors and bondholders believed until Argentina thumbed its nose at them in 2003-5 and got away with it.

Private counterparties are a whole different ballgame. They are loth and slow to pay. Dismayed creditors have learned this lesson in Russia in 1998. Investors in derivatives get acquainted with it in the 2001-2 Enron affair. Mr. Silverstein was agonizingly introduced to it in his dealings with insurance companies over the September 11 World Trade Center terrorist attacks.

We may more narrowly define moral hazard as the outcome of asymmetric information - and thus as the result of the rational conflicts between stakeholders (e.g., between shareholders and managers, or between "principals" and "agents"). This modern, narrow definition has the advantage of focusing our moral outrage upon the culprits - rather than, indiscriminately, upon both villains and victims.

The shareholders and employees of Enron may be entitled

to some kind of safety net - but not so its managers. Laws - and social norms - that protect the latter at the expense of the former, should be altered post haste. The government of a country bankrupted by irresponsible economic policies should be ousted - its hapless citizens may deserve financial succor. This distinction between perpetrator and prey is essential.

The insurance industry has developed a myriad ways to cope with moral hazard. Co-insurance, investigating fraudulent claims, deductibles, and incentives to reduce claims are all effective. The residual cost of moral hazard is spread among the insured in the form of higher premiums. No reason not to emulate these stalwart risk traders. They bet their existence of their ability to minimize moral hazard - and hitherto, most of them have been successful.

Morality (as Mental State)

Introduction

Moral values, rules, principles, and judgements are often thought of as beliefs or as true beliefs. Those who hold them to be true beliefs also annex to them a warrant or a justification (from the "real world"). Yet, it is far more reasonable to conceive of morality (ethics) as a state of mind, a mental state. It entails belief, but not necessarily true belief, or justification. As a mental state, morality cannot admit the "world" (right and wrong, evidence, goals, or results) into its logical formal definition. The world is never part of the definition of a mental state.

Another way of looking at it, though, is that morality cannot be defined in terms of goals and results - because these goals and results ARE morality itself. Such a

definition would be tautological.

There is no guarantee that we know when we are in a certain mental state. Morality is no exception.

An analysis based on the schemata and arguments proposed by Timothy Williamson follows.

Moral Mental State - A Synopsis

Morality is the mental state that comprises a series of attitudes to propositions. There are four classes of moral propositions: "It is wrong to...", "It is right to...", (You should) do this...", "(You should) not do this...". The most common moral state of mind is: one adheres to p. Adhering to p has a non-trivial analysis in the more basic terms of (a component of) believing and (a component of) knowing, to be conceptually and metaphysically analysed later. Its conceptual status is questionable because we need to decompose it to obtain the necessary and sufficient conditions for its possession (Peacocke, 1992). It may be a complex (secondary) concept.

See here for a more detailed analysis.

Adhering to proposition p is not merely believing that p and knowing that p but also that something should be so, if and only if p (moral law).

Morality is not a factive attitude. One believes p to be true - but knows p to be contingently true (dependent on epoch, place, and culture). Since knowing is a factive attitude, the truth it relates to is the contingently true nature of moral propositions.

Morality relates objects to moral propositions and it is a mental state (for every p, having a moral mental relation

to p is a mental state).

Adhering to p entails believing p (involves the mental state of belief). In other words, one cannot adhere without believing. Being in a moral mental state is both necessary and sufficient for adhering to p. Since no "truth" is involved - there is no non-mental component of adhering to p.

Adhering to p is a conjunction with each of the conjuncts (believing p and knowing p) a necessary condition - and the conjunction is necessary and sufficient for adhering to p.

One doesn't always know if one adheres to p. Many moral rules are generated "on the fly", as a reaction to circumstances and moral dilemmas. It is possible to adhere to p falsely (and behave differently when faced with the harsh test of reality). A sceptic would say that for any moral proposition p - one is in the position to know that one doesn't believe p. Admittedly, it is possible for a moral agent to adhere to p without being in the position to know that one adheres to p, as we illustrated above. One can also fail to adhere to p without knowing that one fails to adhere to p. As Williamson says "transparency (to be in the position to know one's mental state) is false". Naturally, one knows one's mental state better than one knows other people's. There is an observational asymmetry involved. We have non-observational (privileged) access to our mental state and observational access to other people's mental states. Thus, we can say that we know our morality non-observationally (directly) - while we are only able to observe other people's morality.

One believes moral propositions and knows moral propositions. Whether the belief itself is rational or not, is

debatable. But the moral mental state strongly imitates rational belief (which relies on reasoning). In other words, the moral mental state masquerades as a factive attitude, though it is not. The confusion arises from the normative nature of knowing and being rational. Normative elements exist in belief attributions, too, but, for some reason, are considered "outside the realm of belief". Belief, for instance, entails the grasping of mental content, its rational processing and manipulation, defeasible reaction to new information.

We will not go here into the distinction offered by Williamson between "believing truly" (not a mental state, according to him) and "believing". Suffice it to say that adhering to p is a mental state, metaphysically speaking - and that "adheres to p" is a (complex or secondary) mental concept. The structure of adheres to p is such that the non-mental concepts are the content clause of the attitude ascription and, thus do not render the concept thus expressed non-mental: adheres to (right and wrong, evidence, goals, or results).

Williamson's Mental State Operator calculus is applied.

Origin is essential when we strive to fully understand the relations between adhering that p and other moral concepts (right, wrong, justified, etc.). To be in the moral state requires the adoption of specific paths, causes, and behaviour modes. Moral justification and moral judgement are such paths.

Knowing, Believing and Their Conjunction

We said above that:

"Adhering to p is a conjunction with each of the conjuncts (believing p and knowing p) a necessary condition - and

the conjunction is necessary and sufficient for adhering to p."

Williamson suggests that one believes p if and only if one has an attitude to proposition p indiscriminable from knowing p. Another idea is that to believe p is to treat p as if one knew p. Thus, knowing is central to believing though by no means does it account for the entire spectrum of belief (example: someone who chooses to believe in God even though he doesn't know if God exists). Knowledge does determine what is and is not appropriate to believe, though ("standard of appropriateness"). Evidence helps justify belief.

But knowing as a mental state is possible without having a concept of knowing. One can treat propositions in the same way one treats propositions that one knows - even if one lacks concept of knowing. It is possible (and practical) to rely on a proposition as a premise if one has a factive propositional attitude to it. In other words, to treat the proposition as though it is known and then to believe in it.

As Williamson says, "believing is a kind of a botched knowing". Knowledge is the aim of belief, its goal.

Mortality and Immortality (in Economics)

The noted economist, Julian Simon, once quipped: "Because we can expect future generations to be richer than we are, no matter what we do about resources, asking us to refrain from using resources now so that future generations can have them later is like asking the poor to make gifts to the rich."

Roberto Calvo Macias, a Spanish author and thinker, once wrote that it is impossible to design a coherent philosophy

of economics not founded on our mortality. The Grim Reaper permeates estate laws, retirement plans, annuities, life insurance and much more besides.

The industrial revolution taught us that humans are interchangeable by breaking the process of production down to minute - and easily learned - functional units. Only the most basic skills were required. This led to great alienation. Motion pictures of the period ("Metropolis", "Modern Times") portray the industrial worker as a nut in a machine, driven to the verge of insanity by the numbing repetitiveness of his work.

As technology evolved, training periods have lengthened, and human capital came to outweigh the physical or monetary kinds. This led to an ongoing revolution in economic relations. Ironically, dehumanizing totalitarian regimes, such as fascism and communism, were the first to grasp the emerging prominence of scarce and expensive human capital among other means of production. What makes humans a scarce natural resource is their mortality.

Though aware of their finitude, most people behave as though they are going to live forever. Economic and social institutions are formed to last. People embark on long term projects and make enduring decisions - for instance, to invest money in stocks or bonds - even when they are very old.

Childless octogenarian inventors defend their fair share of royalties with youthful ferocity and tenacity. Businessmen amass superfluous wealth and collectors bid in auctions regardless of their age. We all - particularly economists - seem to deny the prospect of death.

Examples of this denial abound in the dismal science:

Consider the invention of the limited liability corporation. While its founders are mortals – the company itself is immortal. It is only one of a group of legal instruments - the will and the estate, for instance - that survive a person's demise. Economic theories assume that humans - or maybe humanity - are immortal and, thus, possessed of an infinite horizon.

Valuation models often discount an infinite stream of future dividends or interest payments to obtain the present value of a security. Even in the current bear market, the average multiple of the p/e - price to earnings - ratio is 45. This means that the average investor is willing to wait more than 60 years to recoup his investment (assuming capital gains tax of 35 percent).

Standard portfolio management theory explicitly states that the investment horizon is irrelevant. Both long-term and short-term magpies choose the same bundle of assets and, therefore, the same profile of risk and return. As John Campbell and Luis Viceira point in their "Strategic Asset Allocation", published this year by Oxford University Press, the model ignores future income from work which tends to dwindle with age. Another way to look at it is that income from labor is assumed to be constant - forever!

To avoid being regarded as utterly inane, economists weigh time. The present and near future are given a greater weight than the far future. But the decrease in weight is a straight function of duration. This uniform decline in weight leads to conundrums. "The Economist" - based on the introduction to the anthology "Discounting and Intergenerational Equity", published by the Resources for the Future think tank - describes one such predicament:

"Suppose a long-term discount rate of 7 percent (after inflation) is used, as it typically is in cost-benefit analysis. Suppose also that the project's benefits arrive 200 years from now, rather than in 30 years or less. If global GDP grew by 3 percent during those two centuries, the value of the world's output in 2200 will be $8 quadrillion ... But in present value terms, that stupendous sum would be worth just $10 billion. In other words, it would not make sense ... to spend any more than $10 billion ... today on a measure that would prevent the loss of the planet's entire output 200 years from now."

Traditional cost-benefit analysis falters because it implicitly assumes that we possess perfect knowledge regarding the world 200 years hence - and, insanely, that we will survive to enjoy ad infinitum the interest on capital we invest today. From our exalted and privileged position in the present, the dismal science appears to suggest, we judge the future distribution of income and wealth and the efficiency of various opportunity-cost calculations. In the abovementioned example, we ask ourselves whether we prefer to spend $10 billion now - due to our "pure impatience" to consume - or to defer present expenditures so as to consume more 200 years hence!

Yet, though their behavior indicates a denial of imminent death - studies have demonstrated that people intuitively and unconsciously apply cost-benefit analyses to decisions with long-term outcomes. Moreover, contrary to current economic thinking, they use decreasing utility rates of discount for the longer periods in their calculations. They are not as time-consistent as economists would have them be. They value the present and near future more than they do the far future. In other

words, they take their mortality into account.

This is supported by a paper titled "Doing it Now or Later", published in the March 1999 issue of the American Economic Review. In it the authors suggest that over-indulgers and procrastinators alike indeed place undue emphasis on the near future. Self-awareness surprisingly only exacerbates the situation: "why resist? I have a self-control problem. Better indulge a little now than a lot later."

But a closer look exposes an underlying conviction of perdurability.

The authors distinguish sophisticates from naifs. Both seem to subscribe to immortality. The sophisticate refrains from procrastinating because he believes that he will live to pay the price. Naifs procrastinate because they believe that they will live to perform the task later. They also try to delay overindulgence because they assume that they will live to enjoy the benefits. Similarly, sophisticated folk overindulge a little at present because they believe that, if they don't, they will overindulge a lot in future. Both types believe that they will survive to experience the outcomes of their misdeeds and decisions.

The denial of the inevitable extends to gifts and bequests. Many economists regard inheritance as an accident. Had people accepted their mortality, they would have consumed much more and saved much less. A series of working papers published by the NBER in the last 5 years reveals a counter-intuitive pattern of intergenerational shifting of wealth.

Parents gift their off-spring unequally. The richer the child, the larger his or her share of such largesse. The

older the parent, the more pronounced the asymmetry. Post-mortem bequests, on the other hand, are usually divided equally among one's progeny.

The avoidance of estate taxes fails to fully account for these patterns of behavior. A parental assumption of immortality does a better job. The parent behaves as though it is deathless. Rich children are better able to care for ageing and burdensome parents. Hence the uneven distribution of munificence. Unequal gifts - tantamount to insurance premiums - safeguard the rich scions' sustained affection and treatment. Still, parents are supposed to love their issue equally. Hence the equal allotment of bequests.

N

Narcissism, Collective

"It is always possible to bind together a considerable number of people in love, so long as there are other people left over to receive the manifestations of their aggressiveness"

(Sigmund Freud, Civilization and Its Discontents)

In their book ***"Personality Disorders in Modern Life"***, Theodore Millon and Roger Davis state, as a matter of fact, that pathological narcissism was the preserve of "the royal and the wealthy" and that it "seems to have gained prominence only in the late twentieth century". Narcissism, according to them, may be associated with "higher levels of Maslow's hierarchy of needs ... Individuals in less advantaged nations .. are too busy trying (to survive) ... to be arrogant and grandiose".

They - like Lasch before them - attribute pathological narcissism to "a society that stresses individualism and self-gratification at the expense of community, namely the United States." They assert that the disorder is more prevalent among certain professions with "star power" or respect. "In an individualistic culture, the narcissist is 'God's gift to the world'. In a collectivist society, the narcissist is 'God's gift to the collective'".

Millon quotes Warren and Caponi's ***"The Role of Culture in the Development of Narcissistic Personality Disorders in America, Japan and Denmark":***

"Individualistic narcissistic structures of self-regard (in

individualistic societies) ... are rather self-contained and independent ... (In collectivist cultures) narcissistic configurations of the we-self ... denote self-esteem derived from strong identification with the reputation and honor of the family, groups, and others in hierarchical relationships."

Having lived in the last 20 years 12 countries in 4 continents - from the impoverished to the affluent, with individualistic and collectivist societies - I know that Millon and Davis are wrong. Theirs is, indeed, the quintessential American point of view which lacks an intimate knowledge of other parts of the world. Millon even wrongly claims that the DSM's international equivalent, the ICD, does not include the narcissistic personality disorder (it does).

Pathological narcissism is a ubiquitous phenomenon because every human being - regardless of the nature of his society and culture - develops healthy narcissism early in life. Healthy narcissism is rendered pathological by abuse - and abuse, alas, is a universal human behavior. By "abuse" we mean any refusal to acknowledge the emerging boundaries of the individual - smothering, doting, and excessive expectations - are as abusive as beating and incest.

There are malignant narcissists among subsistence farmers in Africa, nomads in the Sinai desert, day laborers in east Europe, and intellectuals and socialites in Manhattan. Malignant narcissism is all-pervasive and independent of culture and society.

It is true, though, that the WAY pathological narcissism manifests and is experienced is dependent on the particulars of societies and cultures. In some cultures, it is

encouraged, in others suppressed. In some societies it is channeled against minorities - in others it is tainted with paranoia. In collectivist societies, it may be projected onto the collective, in individualistic societies, it is an individual's trait.

Yet, can families, organizations, ethnic groups, churches, and even whole nations be safely described as "narcissistic" or "pathologically self-absorbed"? Wouldn't such generalizations be a trifle racist and more than a trifle wrong? The answer is: it depends.

Human collectives - states, firms, households, institutions, political parties, cliques, bands - acquire a life and a character all their own. The longer the association or affiliation of the members, the more cohesive and conformist the inner dynamics of the group, the more persecutory or numerous its enemies, the more intensive the physical and emotional experiences of the individuals it is comprised of, the stronger the bonds of locale, language, and history - the more rigorous might an assertion of a common pathology be.

Such an all-pervasive and extensive pathology manifests itself in the behavior of each and every member. It is a defining - though often implicit or underlying - mental structure. It has explanatory and predictive powers. It is recurrent and invariable - a pattern of conduct melded with distorted cognition and stunted emotions. And it is often vehemently denied.

A possible DSM-like list of criteria for narcissistic organizations or groups:

An all-pervasive pattern of grandiosity (in fantasy or behavior), need for admiration or adulation and lack of

empathy, usually beginning at the group's early history and present in various contexts. Persecution and abuse are often the causes - or at least the antecedents - of the pathology.

Five (or more) of the following criteria must be met:

1. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - feel grandiose and self-important (e.g., they exaggerate the group's achievements and talents to the point of lying, demand to be recognized as superior - simply for belonging to the group and without commensurate achievement).

2. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - are obsessed with group fantasies of unlimited success, fame, fearsome power or omnipotence, unequalled brilliance, bodily beauty or performance, or ideal, everlasting, all-conquering ideals or political theories.

3. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - are firmly convinced that the group is unique and, being special, can only be understood by, should only be treated by, or associate with, other special or unique, or high-status groups (or institutions).

4. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - require excessive

admiration, adulation, attention and affirmation - or, failing that, wish to be feared and to be notorious (narcissistic supply).

5. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - feel entitled. They expect unreasonable or special and favourable priority treatment. They demand automatic and full compliance with expectations. They rarely accept responsibility for their actions ("alloplastic defences"). This often leads to anti-social behaviour, cover-ups, and criminal activities on a mass scale.

6. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - are "interpersonally exploitative", i.e., use others to achieve their own ends. This often leads to anti-social behaviour, cover-ups, and criminal activities on a mass scale.

7. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - are devoid of empathy. They are unable or unwilling to identify with or acknowledge the feelings and needs of other groups. This often leads to anti- social behaviour, cover-ups, and criminal activities on a mass scale.

8. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - are constantly envious of others or believes that they feel the same about them. This often leads to anti-social

behaviour, cover-ups, and criminal activities on a mass scale.

9. The group as a whole, or members of the group - acting as such and by virtue of their association and affiliation with the group - are arrogant and sport haughty behaviors or attitudes coupled with rage when frustrated, contradicted, punished, limited, or confronted. This often leads to anti-social behavior, cover-ups, and criminal activities on a mass scale.

Narcissism of Small Differences

Freud coined the phrase ***"narcissism of small differences"*** in a paper titled "The Taboo of Virginity" that he published in 1917. Referring to earlier work by British anthropologist Ernest Crawley, he said that we reserve our most virulent emotions – aggression, hatred, envy – towards those who resemble us the most. We feel threatened not by the Other with whom we have little in common – but by the "nearly-we", who mirror and reflect us.

The "nearly-he" imperils the narcissist's selfhood and challenges his uniqueness, perfection, and superiority – the fundaments of the narcissist's sense of self-worth. It provokes in him primitive narcissistic defences and leads him to adopt desperate measures to protect, preserve, and restore his balance. I call it the Gulliver Array of Defence Mechanisms.

The very existence of the "nearly-he" constitutes a narcissistic injury. The narcissist feels humiliated, shamed, and embarrassed not to be special after all – and he reacts with envy and aggression towards this source of frustration.

In doing so, he resorts to splitting, projection, and Projective Identification. He attributes to other people personal traits that he dislikes in himself and he forces them to behave in conformity with his expectations. In other words, the narcissist sees in others those parts of himself that he cannot countenance and deny. He forces people around him to become him and to reflect his shameful behaviours, hidden fears, and forbidden wishes.

But how does the narcissist avoid the realisation that what he loudly decries and derides is actually part of him? By exaggerating, or even dreaming up and creatively inventing, differences between his qualities and conduct and other people's. The more hostile he becomes towards the "nearly-he", the easier it is to distinguish himself from "the Other".

To maintain this self-differentiating aggression, the narcissist stokes the fires of hostility by obsessively and vengefully nurturing grudges and hurts (some of them imagined). He dwells on injustice and pain inflicted on him by these stereotypically "bad or unworthy" people. He devalues and dehumanises them and plots revenge to achieve closure. In the process, he indulges in grandiose fantasies, aimed to boost his feelings of omnipotence and magical immunity.

In the process of acquiring an adversary, the narcissist blocks out information that threatens to undermine his emerging self-perception as righteous and offended. He begins to base his whole identity on the brewing conflict which is by now a major preoccupation and a defining or even all-pervasive dimension of his existence.

Very much the same dynamic applies to coping with major differences between the narcissist and others. He

emphasises the large disparities while transforming even the most minor ones into decisive and unbridgeable.

Deep inside, the narcissist is continuously subject to a gnawing suspicion that his self-perception as omnipotent, omniscient, and irresistible is flawed, confabulated, and unrealistic. When criticised, the narcissist actually agrees with the critic. In other words, there are only minor differences between the narcissist and his detractors. But this threatens the narcissist's internal cohesion. Hence the wild rage at any hint of disagreement, resistance, or debate.

Similarly, intimacy brings people closer together – it makes them more similar. There are only minor differences between intimate partners. The narcissist perceives this as a threat to his sense of uniqueness. He reacts by devaluing the source of his fears: the mate, spouse, lover, or partner. He re-establishes the boundaries and the distinctions that were removed by intimacy. Thus restored, he is emotionally ready to embark on another round of idealisation (the Approach-Avoidance Repetition Complex).

Narcissism, Corporate

The perpetrators of the recent spate of financial frauds in the USA acted with callous disregard for both their employees and shareholders - not to mention other stakeholders. Psychologists have often remote-diagnosed them as "malignant, pathological narcissists".

Narcissists are driven by the need to uphold and maintain a false self - a concocted, grandiose, and demanding psychological construct typical of the narcissistic personality disorder. The false self is projected to the world in order to garner "narcissistic supply" - adulation,

admiration, or even notoriety and infamy. Any kind of attention is usually deemed by narcissists to be preferable to obscurity.

The false self is suffused with fantasies of perfection, grandeur, brilliance, infallibility, immunity, significance, omnipotence, omnipresence, and omniscience. To be a narcissist is to be convinced of a great, inevitable personal destiny. The narcissist is preoccupied with ideal love, the construction of brilliant, revolutionary scientific theories, the composition or authoring or painting of the greatest work of art, the founding of a new school of thought, the attainment of fabulous wealth, the reshaping of a nation or a conglomerate, and so on. The narcissist never sets realistic goals to himself. He is forever preoccupied with fantasies of uniqueness, record breaking, or breathtaking achievements. His verbosity reflects this propensity.

Reality is, naturally, quite different and this gives rise to a "grandiosity gap". The demands of the false self are never satisfied by the narcissist's accomplishments, standing, wealth, clout, sexual prowess, or knowledge. The narcissist's grandiosity and sense of entitlement are equally incommensurate with his achievements.

To bridge the grandiosity gap, the malignant (pathological) narcissist resorts to shortcuts. These very often lead to fraud.

The narcissist cares only about appearances. What matters to him are the facade of wealth and its attendant social status and narcissistic supply. Witness the travestied extravagance of Tyco's Denis Kozlowski. Media attention only exacerbates the narcissist's addiction and makes it incumbent on him to go to ever-wilder extremes to secure uninterrupted supply from this source.

The narcissist lacks empathy - the ability to put himself in other people's shoes. He does not recognize boundaries - personal, corporate, or legal. Everything and everyone are to him mere instruments, extensions, objects unconditionally and uncomplainingly available in his pursuit of narcissistic gratification.

This makes the narcissist perniciously exploitative. He uses, abuses, devalues, and discards even his nearest and dearest in the most chilling manner. The narcissist is utility- driven, obsessed with his overwhelming need to reduce his anxiety and regulate his labile sense of self-worth by securing a constant supply of his drug - attention. American executives acted without compunction when they raided their employees' pension funds - as did Robert Maxwell a generation earlier in Britain.

The narcissist is convinced of his superiority - cerebral or physical. To his mind, he is a Gulliver hamstrung by a horde of narrow-minded and envious Lilliputians. The dotcom "new economy" was infested with "visionaries" with a contemptuous attitude towards the mundane: profits, business cycles, conservative economists, doubtful journalists, and cautious analysts.

Yet, deep inside, the narcissist is painfully aware of his addiction to others - their attention, admiration, applause, and affirmation. He despises himself for being thus dependent. He hates people the same way a drug addict hates his pusher. He wishes to "put them in their place", humiliate them, demonstrate to them how inadequate and imperfect they are in comparison to his regal self and how little he craves or needs them.

The narcissist regards himself as one would an expensive

present, a gift to his company, to his family, to his neighbours, to his colleagues, to his country. This firm conviction of his inflated importance makes him feel entitled to special treatment, special favors, special outcomes, concessions, subservience, immediate gratification, obsequiousness, and lenience. It also makes him feel immune to mortal laws and somehow divinely protected and insulated from the inevitable consequences of his deeds and misdeeds.

The self-destructive narcissist plays the role of the "bad guy" (or "bad girl"). But even this is within the traditional social roles cartoonishly exaggerated by the narcissist to attract attention. Men are likely to emphasise intellect, power, aggression, money, or social status. Narcissistic women are likely to emphasise body, looks, charm, sexuality, feminine "traits", homemaking, children and childrearing.

Punishing the wayward narcissist is a veritable catch-22.

A jail term is useless as a deterrent if it only serves to focus attention on the narcissist. Being infamous is second best to being famous - and far preferable to being ignored. The only way to effectively punish a narcissist is to withhold narcissistic supply from him and thus to prevent him from becoming a notorious celebrity.

Given a sufficient amount of media exposure, book contracts, talk shows, lectures, and public attention - the narcissist may even consider the whole grisly affair to be emotionally rewarding. To the narcissist, freedom, wealth, social status, family, vocation - are all means to an end. And the end is attention. If he can secure attention by being the big bad wolf - the narcissist unhesitatingly transforms himself into one. Lord Archer, for instance,

seems to be positively basking in the media circus provoked by his prison diaries.

The narcissist does not victimise, plunder, terrorise and abuse others in a cold, calculating manner. He does so offhandedly, as a manifestation of his genuine character. To be truly "guilty" one needs to intend, to deliberate, to contemplate one's choices and then to choose one's acts. The narcissist does none of these.

Thus, punishment breeds in him surprise, hurt and seething anger. The narcissist is stunned by society's insistence that he should be held accountable for his deeds and penalized accordingly. He feels wronged, baffled, injured, the victim of bias, discrimination and injustice. He rebels and rages.

Depending upon the pervasiveness of his magical thinking, the narcissist may feel besieged by overwhelming powers, forces cosmic and intrinsically ominous. He may develop compulsive rites to fend off this "bad", unwarranted, persecutory influences.

The narcissist, very much the infantile outcome of stunted personal development, engages in magical thinking. He feels omnipotent, that there is nothing he couldn't do or achieve if only he sets his mind to it. He feels omniscient - he rarely admits to ignorance and regards his intuitions and intellect as founts of objective data.

Thus, narcissists are haughtily convinced that introspection is a more important and more efficient (not to mention easier to accomplish) method of obtaining knowledge than the systematic study of outside sources of information in accordance with strict and tedious curricula. Narcissists are "inspired" and they despise

hamstrung technocrats.

To some extent, they feel omnipresent because they are either famous or about to become famous or because their product is selling or is being manufactured globally. Deeply immersed in their delusions of grandeur, they firmly believe that their acts have - or will have - a great influence not only on their firm, but on their country, or even on Mankind. Having mastered the manipulation of their human environment - they are convinced that they will always "get away with it". They develop hubris and a false sense of immunity.

Narcissistic immunity is the (erroneous) feeling, harboured by the narcissist, that he is impervious to the consequences of his actions, that he will never be effected by the results of his own decisions, opinions, beliefs, deeds and misdeeds, acts, inaction, or membership of certain groups, that he is above reproach and punishment, that, magically, he is protected and will miraculously be saved at the last moment. Hence the audacity, simplicity, and transparency of some of the fraud and corporate looting in the 1990's. Narcissists rarely bother to cover their traces, so great is their disdain and conviction that they are above mortal laws and wherewithal.

What are the sources of this unrealistic appraisal of situations and events?

The false self is a childish response to abuse and trauma. Abuse is not limited to sexual molestation or beatings. Smothering, doting, pampering, over-indulgence, treating the child as an extension of the parent, not respecting the child's boundaries, and burdening the child with excessive expectations are also forms of abuse.

The child reacts by constructing false self that is possessed of everything it needs in order to prevail: unlimited and instantaneously available Harry Potter-like powers and wisdom. The false self, this Superman, is indifferent to abuse and punishment. This way, the child's true self is shielded from the toddler's harsh reality.

This artificial, maladaptive separation between a vulnerable (but not punishable) true self and a punishable (but invulnerable) false self is an effective mechanism. It isolates the child from the unjust, capricious, emotionally dangerous world that he occupies. But, at the same time, it fosters in him a false sense of "nothing can happen to me, because I am not here, I am not available to be punished, hence I am immune to punishment".

The comfort of false immunity is also yielded by the narcissist's sense of entitlement. In his grandiose delusions, the narcissist is sui generis, a gift to humanity, a precious, fragile, object. Moreover, the narcissist is convinced both that this uniqueness is immediately discernible - and that it gives him special rights. The narcissist feels that he is protected by some cosmological law pertaining to "endangered species".

He is convinced that his future contribution to others - his firm, his country, humanity - should and does exempt him from the mundane: daily chores, boring jobs, recurrent tasks, personal exertion, orderly investment of resources and efforts, laws and regulations, social conventions, and so on.

The narcissist is entitled to a "special treatment": high living standards, constant and immediate catering to his needs, the eradication of any friction with the humdrum and the routine, an all-engulfing absolution of his sins,

fast track privileges (to higher education, or in his encounters with bureaucracies, for instance). Punishment, trusts the narcissist, is for ordinary people, where no great loss to humanity is involved.

Narcissists are possessed of inordinate abilities to charm, to convince, to seduce, and to persuade. Many of them are gifted orators and intellectually endowed. Many of them work in in politics, the media, fashion, show business, the arts, medicine, or business, and serve as religious leaders.

By virtue of their standing in the community, their charisma, or their ability to find the willing scapegoats, they do get exempted many times. Having recurrently "got away with it" - they develop a theory of personal immunity, founded upon some kind of societal and even cosmic "order" in which certain people are above punishment.

But there is a fourth, simpler, explanation. The narcissist lacks self-awareness. Divorced from his true self, unable to empathise (to understand what it is like to be someone else), unwilling to constrain his actions to cater to the feelings and needs of others - the narcissist is in a constant dreamlike state.

To the narcissist, his life is unreal, like watching an autonomously unfolding movie. The narcissist is a mere spectator, mildly interested, greatly entertained at times. He does not "own" his actions. He, therefore, cannot understand why he should be punished and when he is, he feels grossly wronged.

So convinced is the narcissist that he is destined to great things - that he refuses to accept setbacks, failures and punishments. He regards them as temporary, as the

outcomes of someone else's errors, as part of the future mythology of his rise to power/brilliance/wealth/ideal love, etc. Being punished is a diversion of his precious energy and resources from the all-important task of fulfilling his mission in life.

The narcissist is pathologically envious of people and believes that they are equally envious of him. He is paranoid, on guard, ready to fend off an imminent attack. A punishment to the narcissist is a major surprise and a nuisance but it also validates his suspicion that he is being persecuted. It proves to him that strong forces are arrayed against him.

He tells himself that people, envious of his achievements and humiliated by them, are out to get him. He constitutes a threat to the accepted order. When required to pay for his misdeeds, the narcissist is always disdainful and bitter and feels misunderstood by his inferiors.

Cooked books, corporate fraud, bending the (GAAP or other) rules, sweeping problems under the carpet, over-promising, making grandiose claims (the "vision thing") - are hallmarks of a narcissist in action. When social cues and norms encourage such behaviour rather than inhibit it - in other words, when such behaviour elicits abundant narcissistic supply - the pattern is reinforced and become entrenched and rigid. Even when circumstances change, the narcissist finds it difficult to adapt, shed his routines, and replace them with new ones. He is trapped in his past success. He becomes a swindler.

But pathological narcissism is not an isolated phenomenon. It is embedded in our contemporary culture. The West's is a narcissistic civilization. It upholds narcissistic values and penalizes alternative value-

systems. From an early age, children are taught to avoid self-criticism, to deceive themselves regarding their capacities and attainments, to feel entitled, and to exploit others.

As Lilian Katz observed in her important paper, "Distinctions between Self-Esteem and Narcissism: Implications for Practice", published by the Educational Resources Information Center, the line between enhancing self-esteem and fostering narcissism is often blurred by educators and parents.

Both Christopher Lasch in "The Culture of Narcissism" and Theodore Millon in his books about personality disorders, singled out American society as narcissistic. Litigiousness may be the flip side of an inane sense of entitlement. Consumerism is built on this common and communal lie of "I can do anything I want and possess everything I desire if I only apply myself to it" and on the pathological envy it fosters.

Not surprisingly, narcissistic disorders are more common among men than among women. This may be because narcissism conforms to masculine social mores and to the prevailing ethos of capitalism. Ambition, achievements, hierarchy, ruthlessness, drive - are both social values and narcissistic male traits. Social thinkers like the aforementioned Lasch speculated that modern American culture - a self-centred one - increases the rate of incidence of the narcissistic personality disorder.

Otto Kernberg, a notable scholar of personality disorders, confirmed Lasch's intuition: "Society can make serious psychological abnormalities, which already exist in some percentage of the population, seem to be at least superficially appropriate."

In their book ***"Personality Disorders in Modern Life"***, Theodore Millon and Roger Davis state, as a matter of fact, that pathological narcissism was once the preserve of "the royal and the wealthy" and that it "seems to have gained prominence only in the late twentieth century". Narcissism, according to them, may be associated with "higher levels of Maslow's hierarchy of needs ... Individuals in less advantaged nations .. are too busy trying (to survive) ... to be arrogant and grandiose".

They - like Lasch before them - attribute pathological narcissism to "a society that stresses individualism and self-gratification at the expense of community, namely the United States." They assert that the disorder is more prevalent among certain professions with "star power" or respect. "In an individualistic culture, the narcissist is 'God's gift to the world'. In a collectivist society, the narcissist is 'God's gift to the collective."

Millon quotes Warren and Caponi's ***"The Role of Culture in the Development of Narcissistic Personality Disorders in America, Japan and Denmark"***:

"Individualistic narcissistic structures of self-regard (in individualistic societies) ... are rather self-contained and independent ... (In collectivist cultures) narcissistic configurations of the we-self ... denote self-esteem derived from strong identification with the reputation and honor of the family, groups, and others in hierarchical relationships."

Still, there are malignant narcissists among subsistence farmers in Africa, nomads in the Sinai desert, day laborers in east Europe, and intellectuals and socialites in Manhattan. Malignant narcissism is all-pervasive and independent of culture and society. It is true, though, that

the ***way*** pathological narcissism manifests and is experienced is dependent on the particulars of societies and cultures.

In some cultures, it is encouraged, in others suppressed. In some societies it is channeled against minorities - in others it is tainted with paranoia. In collectivist societies, it may be projected onto the collective, in individualistic societies, it is an individual's trait.

Yet, can families, organizations, ethnic groups, churches, and even whole nations be safely described as "narcissistic" or "pathologically self-absorbed"? Can we talk about a "corporate culture of narcissism"?

Human collectives - states, firms, households, institutions, political parties, cliques, bands - acquire a life and a character all their own. The longer the association or affiliation of the members, the more cohesive and conformist the inner dynamics of the group, the more persecutory or numerous its enemies, competitors, or adversaries, the more intensive the physical and emotional experiences of the individuals it is comprised of, the stronger the bonds of locale, language, and history - the more rigorous might an assertion of a common pathology be.

Such an all-pervasive and extensive pathology manifests itself in the behavior of each and every member. It is a defining - though often implicit or underlying - mental structure. It has explanatory and predictive powers. It is recurrent and invariable - a pattern of conduct melding distorted cognition and stunted emotions. And it is often vehemently denied.

Narcissism, Cultural

A Reaction to Roger Kimball's
"Christopher Lasch vs. the elites"
"New Criterion", Vol. 13, p.9 (04-01-1995)

"The new narcissist is haunted not by guilt but by anxiety. He seeks not to inflict his own certainties on others but to find a meaning in life. Liberated from the superstitions of the past, he doubts even the reality of his own existence. Superficially relaxed and tolerant, he finds little use for dogmas of racial and ethnic purity but at the same time forfeits the security of group loyalties and regards everyone as a rival for the favors conferred by a paternalistic state. His sexual attitudes are permissive rather than puritanical, even though his emancipation from ancient taboos brings him no sexual peace. Fiercely competitive in his demand for approval and acclaim, he distrusts competition because he associates it unconsciously with an unbridled urge to destroy. Hence he repudiates the competitive ideologies that flourished at an earlier stage of capitalist development and distrusts even their limited expression in sports and games. He extols cooperation and teamwork while harboring deeply antisocial impulses. He praises respect for rules and regulations in the secret belief that they do not apply to himself. Acquisitive in the sense that his cravings have no limits, he does not accumulate goods and provisions against the future, in the manner of the acquisitive individualist of nineteenth-century political economy, but demands immediate gratification and lives in a state of restless, perpetually unsatisfied desire."
(Christopher Lasch - The Culture of Narcissism: American Life in an age of Diminishing Expectations, 1979)

"A characteristic of our times is the predominance, even

in groups traditionally selective, of the mass and the vulgar. Thus, in intellectual life, which of its essence requires and presupposes qualification, one can note the progressive triumph of the pseudo-intellectual, unqualified, unqualifiable..."
(Jose Ortega y Gasset - The Revolt of the Masses, 1932)

Can Science be passionate? This question seems to sum up the life of Christopher Lasch, erstwhile a historian of culture later transmogrified into an ersatz prophet of doom and consolation, a latter day Jeremiah. Judging by his (prolific and eloquent) output, the answer is a resounding no.

There is no single Lasch. This chronicler of culture, did so mainly by chronicling his inner turmoil, conflicting ideas and ideologies, emotional upheavals, and intellectual vicissitudes. In this sense, of (courageous) self-documentation, Mr. Lasch epitomized Narcissism, was the quintessential Narcissist, the better positioned to criticize the phenomenon.

Some "scientific" disciplines (e.g., the history of culture and History in general) are closer to art than to the rigorous (a.k.a. "exact" or "natural" or "physical" sciences). Lasch borrowed heavily from other, more established branches of knowledge without paying tribute to the original, strict meaning of concepts and terms. Such was the use that he made of "Narcissism".

"Narcissism" is a relatively well-defined psychological term. I expound upon it elsewhere ("Malignant self Love - Narcissism Re-Visited"). The Narcissistic Personality Disorder - the acute form of pathological Narcissism - is the name given to a group of 9 symptoms (see: DSM-4). They include: a grandiose Self (illusions of grandeur

coupled with an inflated, unrealistic sense of the Self), inability to empathize with the Other, the tendency to exploit and manipulate others, idealization of other people (in cycles of idealization and devaluation), rage attacks and so on. Narcissism, therefore, has a clear clinical definition, etiology and prognosis.

The use that Lasch makes of this word has nothing to do with its usage in psychopathology. True, Lasch did his best to sound "medicinal". He spoke of "(national) malaise" and accused the American society of lack of self-awareness. But choice of words does not a coherence make.

Analytic Summary of Kimball

Lasch was a member, by conviction, of an imaginary "Pure Left". This turned out to be a code for an odd mixture of Marxism, religious fundamentalism, populism, Freudian analysis, conservatism and any other -ism that Lasch happened to come across. Intellectual consistency was not Lasch's strong point, but this is excusable, even commendable in the search for Truth. What is not excusable is the passion and conviction with which Lasch imbued the advocacy of each of these consecutive and mutually exclusive ideas.

"The Culture of Narcissism - American Life in an Age of Diminishing Expectations" was published in the last year of the unhappy presidency of Jimmy Carter (1979). The latter endorsed the book publicly (in his famous "national malaise" speech).

The main thesis of the book is that the Americans have created a self-absorbed (though not self aware), greedy and frivolous society which depended on consumerism,

demographic studies, opinion polls and Government to know and to define itself. What is the solution?

Lasch proposed a ***"return to basics"***: self-reliance, the family, nature, the community, and the Protestant work ethic. To those who adhere, he promised an elimination of their feelings of alienation and despair.

The apparent radicalism (the pursuit of social justice and equality) was only that: apparent. The New Left was morally self-indulgent. In an Orwellian manner, liberation became tyranny and transcendence - irresponsibility. The "democratization" of education: ***"...has neither improved popular understanding of modern society, raised the quality of popular culture, nor reduced the gap between wealth and poverty, which remains as wide as ever. On the other hand, it has contributed to the decline of critical thought and the erosion of intellectual standards, forcing us to consider the possibility that mass education, as conservatives have argued all along, is intrinsically incompatible with the maintenance of educational standards"***.

Lasch derided capitalism, consumerism and corporate America as much as he loathed the mass media, the government and even the welfare system (intended to deprive its clients of their moral responsibility and indoctrinate them as victims of social circumstance). These always remained the villains. But to this - classically leftist - list he added the New Left. He bundled the two viable alternatives in American life and discarded them both. Anyhow, capitalism's days were numbered, a contradictory system as it was, resting on ***"imperialism, racism, elitism, and inhuman acts of technological destruction"***. What was left except God and the Family?

Lasch was deeply anti-capitalist. He rounded up the usual suspects with the prime suspect being multinationals. To him, it wasn't only a question of exploitation of the working masses. Capitalism acted as acid on the social and moral fabrics and made them disintegrate. Lasch adopted, at times, a theological perception of capitalism as an evil, demonic entity. Zeal usually leads to inconsistency of argumentation: Lasch claimed, for instance, that capitalism negated social and moral traditions while pandering to the lowest common denominator. There is a contradiction here: social mores and traditions are, in many cases, THE lowest common denominator. Lasch displayed a total lack of understanding of market mechanisms and the history of markets. True, markets start out as mass-oriented and entrepreneurs tend to mass- produce to cater to the needs of the newfound consumers. However, as markets evolve - they fragment. Individual nuances of tastes and preferences tend to transform the mature market from a cohesive, homogenous entity - to a loose coalition of niches. Computer aided design and production, targeted advertising, custom made products, personal services - are all the outcomes of the maturation of markets. It is where capitalism is absent that uniform mass production of goods of shoddy quality takes over. This may have been Lasch's biggest fault: that he persistently and wrong-headedly ignored reality when it did not serve his pet theorizing. He made up his mind and did not wish to be confused by the facts. The facts are that all the alternatives to the known four models of capitalism (the Anglo-Saxon, the European, the Japanese and the Chinese) have failed miserably and have led to the very consequences that Lasch warned against… in capitalism. It is in the countries of the former Soviet Bloc, that social solidarity has evaporated, that traditions were trampled upon, that

religion was brutally suppressed, that pandering to the lowest common denominator was official policy, that poverty - material, intellectual and spiritual - became all pervasive, that people lost all self reliance and communities disintegrated.

There is nothing to excuse Lasch: the Wall fell in 1989. An inexpensive trip would have confronted him with the results of the alternatives to capitalism. That he failed to acknowledge his life-long misconceptions and compile the Lasch errata cum mea culpa is the sign of deep-seated intellectual dishonesty. The man was not interested in the truth. In many respects, he was a propagandist. Worse, he combined an amateurish understanding of the Economic Sciences with the fervor of a fundamentalist preacher to produce an absolutely non-scientific discourse.

Let us analyze what he regarded as the basic weakness of capitalism (in "The True and Only Heaven", 1991): its need to increase capacity and production ad infinitum in order to sustain itself. Such a feature would have been destructive if capitalism were to operate in a closed system. The finiteness of the economic sphere would have brought capitalism to ruin. But the world is NOT a closed economic system. 80,000,000 new consumers are added annually, markets globalize, trade barriers are falling, international trade is growing three times faster than the world's GDP and still accounts for less than 15% of it, not to mention space exploration which is at its inception. The horizon is, for all practical purposes, unlimited. The economic system is, therefore, open. Capitalism will never be defeated because it has an infinite number of consumers and markets to colonize. That is not to say that capitalism will not have its crises, even crises of over-capacity. But such crises are a part of the business cycle

not of the underlying market mechanism. They are adjustment pains, the noises of growing up - not the last gasps of dying. To claim otherwise is either to deceive or to be spectacularly ignorant not only of economic fundamentals but of what is happening in the world. It is as intellectually rigorous as the "New Paradigm" which says, in effect, that the business cycle and inflation are both dead and buried.

Lasch's argument: capitalism must forever expand if it is to exist (debatable) - hence the idea of "progress", an ideological corollary of the drive to expand - progress transforms people into insatiable consumers (apparently, a term of abuse).

But this is to ignore the fact that people create economic doctrines (and reality, according to Marx) - not the reverse. In other words, the consumers created capitalism to help them maximize their consumption. History is littered with the remains of economic theories, which did not match the psychological makeup of the human race. There is Marxism, for instance. The best theorized, most intellectually rich and well-substantiated theory must be put to the cruel test of public opinion and of the real conditions of existence. Barbarous amounts of force and coercion need to be applied to keep people functioning under contra-human-nature ideologies such as communism. A horde of what Althusser calls Ideological State Apparatuses must be put to work to preserve the dominion of a religion, ideology, or intellectual theory which do not amply respond to the needs of the individuals that comprise society. The Socialist (more so the Marxist and the malignant version, the Communist) prescriptions were eradicated because they did not correspond to the OBJECTIVE conditions of the world.

They were hermetically detached, and existed only in their mythical, contradiction-free realm (to borrow again from Althusser).

Lasch commits the double intellectual crime of disposing of the messenger AND ignoring the message: people are consumers and there is nothing we can do about it but try to present to them as wide an array as possible of goods and services. High brow and low brow have their place in capitalism because of the preservation of the principle of choice, which Lasch abhors. He presents a false predicament: he who elects progress elects meaninglessness and hopelessness. Is it better - asks Lasch sanctimoniously - to consume and live in these psychological conditions of misery and emptiness? The answer is self evident, according to him. Lasch patronizingly prefers the working class undertones commonly found in the petite bourgeois: ***"its moral realism, its understanding that everything has its price, its respect for limits, its skepticism about progress... sense of unlimited power conferred by science - the intoxicating prospect of man's conquest of the natural world"***.

The limits that Lasch is talking about are metaphysical, theological. Man's rebellion against God is in question. This, in Lasch's view, is a punishable offence. Both capitalism and science are pushing the limits, infused with the kind of hubris which the mythological Gods always chose to penalize (remember Prometheus?). What more can be said about a man that postulated that ***"the secret of happiness lies in renouncing the right to be happy"***. Some matters are better left to psychiatrists than to philosophers. There is megalomania, too: Lasch cannot grasp how could people continue to attach importance to

money and other worldly goods and pursuits after his seminal works were published, denouncing materialism for what it was - a hollow illusion? The conclusion: people are ill informed, egotistical, stupid (because they succumb to the lure of consumerism offered to them by politicians and corporations).

America is in an ***"age of diminishing expectations"*** (Lasch's). Happy people are either weak or hypocritical.

Lasch envisioned a communitarian society, one where men are self made and the State is gradually made redundant. This is a worthy vision and a vision worthy of some other era. Lasch never woke up to the realities of the late 20th century: mass populations concentrated in sprawling metropolitan areas, market failures in the provision of public goods, the gigantic tasks of introducing literacy and good health to vast swathes of the planet, an ever increasing demand for evermore goods and services. Small, self-help communities are not efficient enough to survive - though the ethical aspect is praiseworthy:

"Democracy works best when men and women do things for themselves, with the help of their friends and neighbors, instead of depending on the state."

"A misplaced compassion degrades both the victims, who are reduced to objects of pity, and their would-be benefactors, who find it easier to pity their fellow citizens than to hold them up to impersonal standards, attainment of which would entitle them to respect. Unfortunately, such statements do not tell the whole."

No wonder that Lasch has been compared to Mathew Arnold who wrote:

*"***(culture)** ***does not try to teach down to the level of inferior classes; ...It seeks to do away with classes; to make the best that has been thought and known in the world current everywhere... the men of culture are the true apostles of equality. The great men of culture are those who have had a passion for diffusing, for making prevail, for carrying from one end of society to the other, the best knowledge, the best ideas of their time."*** (Culture and Anarchy) – a quite elitist view.

Unfortunately, Lasch, most of the time, was no more original or observant than the average columnist:

"The mounting evidence of widespread inefficiency and corruption, the decline of American productivity, the pursuit of speculative profits at the expense of manufacturing, the deterioration of our country's material infrastructure, the squalid conditions in our crime-rid- den cities, the alarming and disgraceful growth of poverty, and the widening disparity between poverty and wealth … growing contempt for manual labor... growing gulf between wealth and poverty... the growing insularity of the elites... growing impatience with the constraints imposed by long-term responsibilities and commitments."

Paradoxically, Lasch was an elitist. The very person who attacked the ***"talking classes"*** (the "symbolic analysts" in Robert Reich's less successful rendition) - freely railed against the ***"lowest common denominator"***. True, Lasch tried to reconcile this apparent contradiction by saying that diversity does not entail low standards or selective application of criteria. This, however, tends to undermine his arguments against capitalism. In his typical, anachronistic, language:

"The latest variation on this familiar theme, its reductio ad absurdum, is that a respect for cultural diversity forbids us to impose the standards of privileged groups on the victims of oppression." This leads to ***"universal incompetence"*** and a weakness of the spirit:

"Impersonal virtues like fortitude, workmanship, moral courage, honesty, and respect for adversaries **(are rejected by the champions of diversity)...** ***Unless we are prepared to make demands on one another, we can enjoy only the most rudimentary kind of common life...*** **(agreed standards)** ***are absolutely indispensable to a democratic society*** **(because)** ***double standards mean second-class citizenship."***

This is almost plagiarism. Allan Bloom ("The Closing of the American Mind"):

"**(openness became trivial)** ***...Openness used to be the virtue that permitted us to seek the good by using reason. It now means accepting everything and denying reason's power. The unrestrained and thoughtless pursuit of openness … has rendered openness meaningless."***

Lasch: ***"…moral paralysis of those who value 'openness' above all*** **(democracy is more than)** ***openness and toleration... In the absence of common standards... tolerance becomes indifference."***

"Open Mind" becomes: "Empty Mind".

Lasch observed that America has become a culture of excuses (for self and the "disadvantaged"), of protected judicial turf conquered through litigation (a.k.a. "rights"), of neglect of responsibilities. Free speech is restricted by fear of offending potential audiences. We confuse respect

(which must be earned) with toleration and appreciation, discriminating judgement with indiscriminate acceptance, and turning the blind eye. Fair and well. Political correctness has indeed degenerated into moral incorrectness and plain numbness.

But why is the proper exercise of democracy dependent upon the devaluation of money and markets? Why is luxury ***"morally repugnant"*** and how can this be PROVEN rigorously, formal logically? Lasch does not opine - he informs. What he says has immediate truth-value, is non-debatable, and intolerant. Consider this passage, which came out of the pen of an intellectual tyrant:

"...the difficulty of limiting the influence of wealth suggests that wealth itself needs to be limited... a democratic society cannot allow unlimited accumulation... a moral condemnation of great wealth... backed up with effective political action... at least a rough approximation of economic equality... in the old days (Americans agreed that people should not have) far in excess of their needs."

Lasch failed to realize that democracy and wealth formation are two sides of the SAME coin. That democracy is not likely to spring forth, nor is it likely to survive poverty or total economic equality. The confusion of the two ideas (material equality and political equality) is common: it is the result of centuries of plutocracy (only wealthy people had the right to vote, universal suffrage is very recent). The great achievement of democracy in the 20th century was to separate these two aspects: to combine egalitarian political access with an unequal distribution of wealth. Still, the existence of wealth - no matter how distributed - is a pre-condition. Without it

there will never be real democracy. Wealth generates the leisure needed to obtain education and to participate in community matters. Put differently, when one is hungry - one is less prone to read Mr. Lasch, less inclined to think about civil rights, let alone exercise them.

Mr. Lasch is authoritarian and patronizing, even when he is strongly trying to convince us otherwise. The use of the phrase: "far in excess of their needs" rings of destructive envy. Worse, it rings of a dictatorship, a negation of individualism, a restriction of civil liberties, an infringement on human rights, anti-liberalism at its worst. Who is to decide what is wealth, how much of it constitutes excess, how much is "far in excess" and, above all, what are the needs of the person deemed to be in excess? Which state commissariat will do the job? Would Mr. Lasch have volunteered to phrase the guidelines and if so, which criteria would he have applied? Eighty percent (80%) of the population of the world would have considered Mr. Lasch's wealth to be far in excess of his needs. Mr. Lasch is prone to inaccuracies. Read Alexis de Tocqueville (1835):

"I know of no country where the love of money has taken stronger hold on the affections of men and where a profounder contempt is expressed for the theory of the permanent equality of property... the passions that agitate the Americans most deeply are not their political but their commercial passions… They prefer the good sense which amasses large fortunes to that enterprising genius which frequently dissipates them."

In his book: "The Revolt of the Elites and the Betrayal of Democracy" (published posthumously in 1995) Lasch bemoans a divided society, a degraded public discourse, a social and political crisis, that is really a spiritual crisis.

The book's title is modeled after Jose Ortega y Gasset's "Revolt of the Masses" in which he described the forthcoming political domination of the masses as a major cultural catastrophe. The old ruling elites were the storehouses of all that's good, including all civic virtues, he explained. The masses - warned Ortega y Gasset, prophetically - will act directly and even outside the law in what he called a hyperdemocracy. They will impose themselves on the other classes. The masses harbored a feeling of omnipotence: they had unlimited rights, history was on their side (they were "the spoiled child of human history" in his language), they were exempt from submission to superiors because they regarded themselves as the source of all authority. They faced an unlimited horizon of possibilities and they were entitled to everything at any time. Their whims, wishes and desires constituted the new law of the earth.

Lasch just ingeniously reversed the argument. The same characteristics, he said, are to be found in today's elites, ***"those who control the international flow of money and information, preside over philanthropic foundations and institutions of higher learning, manage the instruments of cultural production and thus set the terms of public debate"***. But they are self appointed, they represent none but themselves. The lower middle classes were much more conservative and stable than their ***"self appointed spokesmen and would-be liberators"***. They know the limits and that there are limits, they have sound political instincts:

"…favor limits on abortion, cling to the two-parent family as a source of stability in a turbulent world, resist experiments with 'alternative lifestyles', and harbor deep reservations about affirmative action and other ventures

in large- scale social engineering."

And who purports to represent them? The mysterious "elite" which, as we find out, is nothing but a code word for the likes of Lasch. In Lasch's world Armageddon is unleashed between the people and this specific elite. What about the political, military, industrial, business and other elites? Yok. What about conservative intellectuals who support what the middle classes do and ***"have deep reservations about affirmative action"*** (to quote him)? Aren't they part of the elite? No answer. So why call it ***"elite"*** and not ***"liberal intellectuals"***? A matter of (lack) of integrity.

The members of this fake elite are hypochondriacs, obsessed with death, narcissistic and weaklings. A scientific description based on thorough research, no doubt.

Even if such a horror-movie elite did exist - what would have been its role? Did he suggest an elite-less pluralistic, modern, technology-driven, essentially (for better or for worse) capitalistic democratic society? Others have dealt with this question seriously and sincerely: Arnold, T.S. Elliot ("Notes towards the Definition of Culture"). Reading Lasch is an absolute waste of time when compared to their studies. The man is so devoid of self-awareness (no pun intended) that he calls himself ***"a stern critic of nostalgia"***. If there is one word with which it is possible to summarize his life's work it is nostalgia (to a world which never existed: a world of national and local loyalties, almost no materialism, savage nobleness, communal responsibility for the Other). In short, to an Utopia compared to the dystopia that is America. The pursuit of a career and of specialized, narrow, expertise, he called a ***"cult"*** and ***"the antithesis of democracy"***.

Yet, he was a member of the "elite" which he so chastised and the publication of his tirades enlisted the work of hundreds of careerists and experts. He extolled self-reliance - but ignored the fact that it was often employed in the service of wealth formation and material accumulation. Were there two kinds of self-reliance - one to be condemned because of its results? Was there any human activity devoid of a dimension of wealth creation? Therefore, are all human activities (except those required for survival) to cease?

Lasch identified emerging elites of professionals and managers, a cognitive elite, manipulators of symbols, a threat to "real" democracy. Reich described them as trafficking in information, manipulating words and numbers for a living. They live in an abstract world in which information and expertise are valuable commodities in an international market. No wonder the privileged classes are more interested in the fate of the global system than in their neighborhood, country, or region. They are estranged, they ***"remove themselves from common life"***. They are heavily invested in social mobility. The new meritocracy made professional advancement and the freedom to make money ***"the overriding goal of social policy"***. They are fixated on finding opportunities and they democratize competence. This, said Lasch, betrayed the American dream!?:

"The reign of specialized expertise is the antithesis of democracy as it was understood by those who saw this country as 'The last best hope of Earth'."

For Lasch citizenship did not mean equal access to economic competition. It meant a shared participation in a common political dialogue (in a common life). The goal of escaping the ***"laboring classes"*** was deplorable. The

real aim should be to ground the values and institutions of democracy in the inventiveness, industry, self-reliance and self-respect of workers. The ***"talking classes"*** brought the public discourse into decline. Instead of intelligently debating issues, they engaged in ideological battles, dogmatic quarrels, name-calling. The debate grew less public, more esoteric and insular. There are no ***"third places"***, civic institutions which ***"promote general conversation across class lines"***. So, social classes are forced to ***"speak to themselves in a dialect... inaccessible to outsiders"***. The media establishment is more committed to ***"a misguided ideal of objectivity"*** than to context and continuity, which underlie any meaningful public discourse.

The spiritual crisis was another matter altogether. This was simply the result of over-secularization. The secular worldview is devoid of doubts and insecurities, explained Lasch. Thus, single-handedly, he eliminated modern science, which is driven by constant doubts, insecurities and questioning and by an utter lack of respect for authority, transcendental as it may be. With amazing gall, Lasch says that it was religion which provided a home for spiritual uncertainties!!!

Religion - writes Lasch - was a source of higher meaning, a repository of practical moral wisdom. Minor matters such as the suspension of curiosity, doubt and disbelief entailed by religious practice and the blood-saturated history of all religions - these are not mentioned. Why spoil a good argument?

The new elites disdain religion and are hostile to it:

"The culture of criticism is understood to rule out religious commitments... **(religion)** ***was something***

useful for weddings and funerals but otherwise dispensable."

Without the benefit of a higher ethic provided by religion (for which the price of suppression of free thought is paid - SV) - the knowledge elites resort to cynicism and revert to irreverence.

"The collapse of religion, its replacement by the remorselessly critical sensibility exemplified by psychoanalysis and the degeneration of the 'analytic attitude' into an all out assault on ideals of every kind have left our culture in a sorry state."

Lasch was a fanatic religious man. He would have rejected this title with vehemence. But he was the worst type: unable to commit himself to the practice while advocating its employment by others. If you asked him why was religion good, he would have waxed on concerning its good RESULTS. He said nothing about the inherent nature of religion, its tenets, its view of Mankind's destiny, or anything else of substance. Lasch was a social engineer of the derided Marxist type: if it works, if it molds the masses, if it keeps them ***"in limits"***, subservient - use it. Religion worked wonders in this respect. But Lasch himself was above his own laws - he even made it a point not to write God with a capital "G", an act of outstanding ***"courage"***. Schiller wrote about the ***"disenchantment of the world"***, the disillusionment which accompanies secularism - a real sign of true courage, according to Nietzsche. Religion is a powerful weapon in the arsenal of those who want to make people feel good about themselves, their lives and the world, in general. Not so Lasch:

"…the spiritual discipline against self-righteousness is

the very essence of religion...* (anyone with) *a proper understanding of religion…* (would not regard it as) *a source of intellectual and emotional security* (but as) ... *a challenge to complacency and pride."

There is no hope or consolation even in religion. It is good only for the purposes of social engineering.

Other Works

In this particular respect, Lasch has undergone a major transformation. In "The New Radicalism in America" (1965), he decried religion as a source of obfuscation.

"The religious roots of the progressive doctrine" - he wrote - were the source of ***"its main weakness"***. These roots fostered an anti-intellectual willingness to use education ***"as a means of social control"*** rather than as a basis for enlightenment. The solution was to blend Marxism and the analytic method of Psychoanalysis (very much as Herbert Marcuse has done - q.v. "Eros and Civilization" and "One Dimensional Man").

In an earlier work ("American Liberals and the Russian Revolution", 1962) he criticized liberalism for seeking ***"painless progress towards the celestial city of consumerism"***. He questioned the assumption that ***"men and women wish only to enjoy life with minimum effort"***. The liberal illusions about the Revolution were based on a theological misconception. Communism remained irresistible for ***"as long as they clung to the dream of an earthly paradise from which doubt was forever banished"***.

In 1973, a mere decade later, the tone is different ("The World of Nations", 1973). The assimilation of the Mormons, he says, was ***"achieved by sacrificing***

whatever features of their doctrine or ritual were demanding or difficult...* (like) *the conception of a secular community organized in accordance with religious principles".

The wheel turned a full cycle in 1991 ("The True and Only Heaven: Progress and its Critics"). The petite bourgeois at least are ***"unlikely to mistake the promised land of progress for the true and only heaven"***.

In "Heaven in a Heartless world" (1977) Lasch criticized the ***"substitution of medical and psychiatric authority for the authority of parents, priests and lawgivers"***. The Progressives, he complained, identify social control with freedom. It is the traditional family - not the socialist revolution - which provides the best hope to arrest ***"new forms of domination"***. There is latent strength in the family and in its ***"old fashioned middle class morality"***. Thus, the decline of the family institution meant the decline of romantic love (!?) and of ***"transcendent ideas in general"***, a typical Laschian leap of logic.

Even art and religion ("The Culture of Narcissism", 1979), ***"historically the great emancipators from the prison of the Self... even sex... (lost) the power to provide an imaginative release"***.

It was Schopenhauer who wrote that art is a liberating force, delivering us from our miserable, decrepit, dilapidated Selves and transforming our conditions of existence. Lasch - forever a melancholy - adopted this view enthusiastically. He supported the suicidal pessimism of Schopenhauer. But he was also wrong. Never before was there an art form more liberating than the cinema, THE art of illusion. The Internet introduced a transcendental dimension into the lives of all its users.

Why is it that transcendental entities must be white-bearded, paternal and authoritarian? What is less transcendental in the Global Village, in the Information Highway or, for that matter, in Steven Spielberg?

The Left, thundered Lasch, had ***"chosen the wrong side in the cultural warfare between 'Middle America' and the educated or half educated classes, which have absorbed avant-garde ideas only to put them at the service of consumer capitalism"***.

In "The Minimal Self" (1984) the insights of traditional religion remained vital as opposed to the waning moral and intellectual authority of Marx, Freud and the like. The meaningfulness of mere survival is questioned: ***"Self affirmation remains a possibility precisely to the degree that an older conception of personality, rooted in Judeo-Christian traditions, has persisted alongside a behavioral or therapeutic conception"***. "Democratic Renewal" will be made possible through this mode of self- affirmation. The world was rendered meaningless by experiences such as Auschwitz, a ***"survival ethic"*** was the unwelcome result. But, to Lasch, Auschwitz offered ***"the need for a renewal of religious faith... for collective commitment to decent social conditions...*** **(the survivors)** ***found strength in the revealed word of an absolute, objective and omnipotent creator... not in personal 'values' meaningful only to themselves"***. One can't help being fascinated by the total disregard for facts displayed by Lasch, flying in the face of logotherapy and the writings of Victor Frankel, the Auschwitz survivor.

"In the history of civilization... vindictive gods give way to gods who show mercy as well and uphold the morality of loving your enemy. Such a morality has never achieved anything like general popularity, but it lives on,

even in our own, enlightened age, as a reminder both of our fallen state and of our surprising capacity for gratitude, remorse and forgiveness by means of which we now and then transcend it."

He goes on to criticize the kind of ***"progress"*** whose culmination is a ***"vision of men and women released from outward constraints"***. Endorsing the legacies of Jonathan Edwards, Orestes Brownson, Ralph Waldo Emerson, Thomas Carlyle, William James, Reinhold Niebuhr and, above all, Martin Luther King, he postulated an alternative tradition, "The Heroic Conception of Life" (an admixture of Brownson's Catholic Radicalism and early republican lore): ***"...a suspicion that life was not worth living unless it was lived with ardour, energy and devotion"***.

A truly democratic society will incorporate diversity and a shared commitment to it - but not as a goal unto itself. Rather as means to a ***"demanding, morally elevating standard of conduct"***. In sum: ***"Political pressure for a more equitable distribution of wealth can come only from movements fired with religious purpose and a lofty conception of life"***. The alternative, progressive optimism, cannot withstand adversity: ***"The disposition properly described as hope, trust or wonder... three names for the same state of heart and mind - asserts the goodness of life in the face of its limits. It cannot be deflated by adversity"***. This disposition is brought about by religious ideas (which the Progressives discarded):

"The power and majesty of the sovereign creator of life, the inescapability of evil in the form of natural limits on human freedom, the sinfulness of man's rebellion against those limits; the moral value of work which once signifies man's submission to necessity and enables him

to transcend it..."

Martin Luther King was a great man because ***"*(He)** *also spoke the language of his own people* **(in addition to addressing the whole nation - SV)*, which incorporated their experience of hardship and exploitation, yet affirmed the rightness of a world full of unmerited hardship...*** **(he drew strength from)** ***a popular religious tradition whose mixture of hope and fatalism was quite alien to liberalism"***.

Lasch said that this was the First deadly Sin of the civil rights movement. It insisted that racial issues be tackled ***"with arguments drawn from modern sociology and from the scientific refutation of social porejudice"*** - and not on moral (read: religious) grounds.

So, what is left to provide us with guidance? Opinion polls. Lasch failed to explain to us why he demonized this particular phenomenon. Polls are mirrors and the conduct of polls is an indication that the public (whose opinion is polled) is trying to get to know itself better. Polls are an attempt at quantified, statistical self-awareness (nor are they a modern phenomenon). Lasch should have been happy: at last proof that Americans adopted his views and decided to know themselves. To have criticized this particular instrument of ***"know thyself"*** implied that Lasch believed that he had privileged access to more information of superior quality or that he believed that his observations tower over the opinions of thousands of respondents and carry more weight. A trained observer would never have succumbed to such vanity. There is a fine line between vanity and oppression, fanaticism and the grief that is inflicted upon those that are subjected to it.

This is Lasch's greatest error: there is an abyss between narcissism and self love, being interested in oneself and being obsessively preoccupied with oneself. Lasch confuses the two. The price of progress is growing self-awareness and with it growing pains and the pains of growing up. It is not a loss of meaning and hope – it is just that pain has a tendency to push everything to the background. Those are constructive pains, signs of adjustment and adaptation, of evolution. America has no inflated, megalomaniac, grandiose ego. It never built an overseas empire, it is made of dozens of ethnic immigrant groups, it strives to learn, to emulate. Americans do not lack empathy - they are the foremost nation of volunteers and also professes the biggest number of (tax deductible) donation makers. Americans are not exploitative - they are hard workers, fair players, Adam Smith-ian egoists. They believe in Live and Let Live. They are individualists and they believe that the individual is the source of all authority and the universal yardstick and benchmark. This is a positive philosophy. Granted, it led to inequalities in the distribution of income and wealth. But then other ideologies had much worse outcomes. Luckily, they were defeated by the human spirit, the best manifestation of which is still democratic capitalism.

The clinical term "Narcissism" was abused by Lasch in his books. It joined other words mistreated by this social preacher. The respect that this man gained in his lifetime (as a social scientist and historian of culture) makes one wonder whether he was right in criticizing the shallowness and lack of intellectual rigor of American society and of its elites.

Nature (and Environmentalism)

The concept of "nature" is a romantic invention. It was

spun by the likes of Jean-Jacques Rousseau in the 18th century as a confabulated utopian contrast to the dystopia of urbanization and materialism. The traces of this dewy-eyed conception of the "savage" and his unmolested, unadulterated surroundings can be found in the more malignant forms of fundamentalist environmentalism.

At the other extreme are religious literalists who regard Man as the crown of creation with complete dominion over nature and the right to exploit its resources unreservedly. Similar, veiled, sentiments can be found among scientists. The Anthropic Principle, for instance, promoted by many outstanding physicists, claims that the nature of the Universe is preordained to accommodate sentient beings - namely, us humans.

Industrialists, politicians and economists have only recently begun paying lip service to sustainable development and to the environmental costs of their policies. Thus, in a way, they bridge the abyss - at least verbally - between these two diametrically opposed forms of fundamentalism. Still, essential dissimilarities between the schools notwithstanding, the dualism of Man vs. Nature is universally acknowledged.

Modern physics - notably the Copenhagen interpretation of quantum mechanics - has abandoned the classic split between (typically human) observer and (usually inanimate) observed. Environmentalists, in contrast, have embraced this discarded worldview wholeheartedly. To them, Man is the active agent operating upon a distinct reactive or passive substrate - i.e., Nature. But, though intuitively compelling, it is a false dichotomy.

Man is, by definition, a part of Nature. His tools are natural. He interacts with the other elements of Nature and

modifies it - but so do all other species. Arguably, bacteria and insects exert on Nature far more influence with farther reaching consequences than Man has ever done.

Still, the "Law of the Minimum" - that there is a limit to human population growth and that this barrier is related to the biotic and abiotic variables of the environment - is undisputed. Whatever debate there is veers between two strands of this Malthusian Weltanschauung: the utilitarian (a.k.a. anthropocentric, shallow, or technocentric) and the ethical (alternatively termed biocentric, deep, or ecocentric).

First, the Utilitarians.

Economists, for instance, tend to discuss the costs and benefits of environmental policies. Activists, on the other hand, demand that Mankind consider the "rights" of other beings and of nature as a whole in determining a least harmful course of action.

Utilitarians regard nature as a set of exhaustible and scarce resources and deal with their optimal allocation from a human point of view. Yet, they usually fail to incorporate intangibles such as the beauty of a sunset or the liberating sensation of open spaces.

"Green" accounting - adjusting the national accounts to reflect environmental data - is still in its unpromising infancy. It is complicated by the fact that ecosystems do not respect man-made borders and by the stubborn refusal of many ecological variables to succumb to numbers. To complicate things further, different nations weigh environmental problems disparately.

Despite recent attempts, such as the Environmental Sustainability Index (ESI) produced by the World

Economic Forum (WEF), no one knows how to define and quantify elusive concepts such as "sustainable development". Even the costs of replacing or repairing depleted resources and natural assets are difficult to determine.

Efforts to capture "quality of life" considerations in the straitjacket of the formalism of distributive justice - known as human-welfare ecology or emancipatory environmentalism - backfired. These led to derisory attempts to reverse the inexorable processes of urbanization and industrialization by introducing localized, small-scale production.

Social ecologists proffer the same prescriptions but with an anarchistic twist. The hierarchical view of nature - with Man at the pinnacle - is a reflection of social relations, they suggest. Dismantle the latter - and you get rid of the former.

The Ethicists appear to be as confounded and ludicrous as their "feet on the ground" opponents.

Biocentrists view nature as possessed of an intrinsic value, regardless of its actual or potential utility. They fail to specify, however, how this, even if true, gives rise to rights and commensurate obligations. Nor was their case aided by their association with the apocalyptic or survivalist school of environmentalism which has developed proto-fascist tendencies and is gradually being scientifically debunked.

The proponents of deep ecology radicalize the ideas of social ecology ad absurdum and postulate a transcendentalist spiritual connection with the inanimate (whatever that may be). In consequence, they refuse to

intervene to counter or contain natural processes, including diseases and famine.

The politicization of environmental concerns runs the gamut from political activism to eco-terrorism. The environmental movement - whether in academe, in the media, in non-governmental organizations, or in legislature - is now comprised of a web of bureaucratic interest groups.

Like all bureaucracies, environmental organizations are out to perpetuate themselves, fight heresy and accumulate political clout and the money and perks that come with it. They are no longer a disinterested and objective party. They have a stake in apocalypse. That makes them automatically suspect.

Bjorn Lomborg, author of "The Skeptical Environmentalist", was at the receiving end of such self-serving sanctimony. A statistician, he demonstrated that the doom and gloom tendered by environmental campaigners, scholars and militants are, at best, dubious and, at worst, the outcomes of deliberate manipulation.

The situation is actually improving on many fronts, showed Lomborg: known reserves of fossil fuels and most metals are rising, agricultural production per head is surging, the number of the famished is declining, biodiversity loss is slowing as do pollution and tropical deforestation. In the long run, even in pockets of environmental degradation, in the poor and developing countries, rising incomes and the attendant drop in birth rates will likely ameliorate the situation in the long run.

Yet, both camps, the optimists and the pessimists, rely on partial, irrelevant, or, worse, manipulated data. The

multiple authors of "People and Ecosystems", published by the World Resources Institute, the World Bank and the United Nations conclude: "Our knowledge of ecosystems has increased dramatically, but it simply has not kept pace with our ability to alter them."

Quoted by The Economist, Daniel Esty of Yale, the leader of an environmental project sponsored by World Economic Forum, exclaimed:

"Why hasn't anyone done careful environmental measurement before? Businessmen always say, 'what matters gets measured'. Social scientists started quantitative measurement 30 years ago, and even political science turned to hard numbers 15 years ago. Yet look at environmental policy, and the data are lousy."

Nor is this dearth of reliable and unequivocal information likely to end soon. Even the Millennium Ecosystem Assessment, supported by numerous development agencies and environmental groups, is seriously under-financed. The conspiracy-minded attribute this curious void to the self-serving designs of the apocalyptic school of environmentalism. Ignorance and fear, they point out, are among the fanatic's most useful allies. They also make for good copy.

Nazism

"My feeling as a Christian points me to my Lord and Savior as a fighter. It points me to the man who once in loneliness, surrounded only by a few followers, recognized these Jews for what they were and summoned men to fight against them and who, God's truth! was greatest not as a sufferer but as a fighter.

In boundless love as a Christian and as a man I read through the passage which tells us how the Lord at last rose in His might and seized the scourge to drive out of the Temple the brood of vipers and adders. How terrific was his fight against the Jewish poison.

Today, after two thousand years, with deepest emotion I recognize more profoundly than ever before the fact that it was for this that He had to shed his blood upon the Cross.

As a Christian I have no duty to allow myself to be cheated, but I have the duty to be a fighter for truth and justice . . .

And if there is anything which could demonstrate that we are acting rightly, it is the distress that daily grows. For as a Christian I have also a duty to my own people. And when I look on my people I see them work and work and toil and labor, and at the end of the week they have only for their wages wretchedness and misery.

When I go out in the morning and see these men standing in their queues and look into their pinched faces, then I believe I would be no Christian, but a very devil, if I felt no pity for them, if I did not, as did our Lord two thousand years ago, turn against those by whom today this poor people are plundered and exploited."

(Source: The Straight Dope - Speech by Adolf Hitler, delivered April 12, 1922, published in "My New Order," and quoted in Freethought Today (April 1990)

Hitler and Nazism are often portrayed as an apocalyptic and seismic break with European history. Yet the truth is that they were the culmination and reification of European

history in the 19th century. Europe's annals of colonialism have prepared it for the range of phenomena associated with the Nazi regime - from industrial murder to racial theories, from slave labour to the forcible annexation of territory.

Germany was a colonial power no different to murderous Belgium or Britain. What set it apart is that it directed its colonial attentions at the heartland of Europe - rather than at Africa or Asia. Both World Wars were colonial wars fought on European soil. Moreover, Nazi Germany innovated by applying prevailing racial theories (usually reserved to non-whites) to the white race itself. It started with the Jews - a non-controversial proposition - but then expanded them to include "east European" whites, such as the Poles and the Russians.

Germany was not alone in its malignant nationalism. The far right in France was as pernicious. Nazism - and Fascism - were world ideologies, adopted enthusiastically in places as diverse as Iraq, Egypt, Norway, Latin America, and Britain. At the end of the 1930's, liberal capitalism, communism, and fascism (and its mutations) were locked in mortal battle of ideologies. Hitler's mistake was to delusionally believe in the affinity between capitalism and Nazism - an affinity enhanced, to his mind, by Germany's corporatism and by the existence of a common enemy: global communism.

Colonialism always had discernible religious overtones and often collaborated with missionary religion. "The White Man's burden" of civilizing the "savages" was widely perceived as ordained by God. The church was the extension of the colonial power's army and trading companies.

It is no wonder that Hitler's lebensraum colonial movement - Nazism - possessed all the hallmarks of an institutional religion: priesthood, rites, rituals, temples, worship, catechism, mythology. Hitler was this religion's ascetic saint. He monastically denied himself earthly pleasures (or so he claimed) in order to be able to dedicate himself fully to his calling. Hitler was a monstrously inverted Jesus, sacrificing his life and denying himself so that (Aryan) humanity should benefit. By surpassing and suppressing his humanity, Hitler became a distorted version of Nietzsche's "superman".

But being a-human or super-human also means being a-sexual and a-moral. In this restricted sense, Hitler was a post-modernist and a moral relativist. He projected to the masses an androgynous figure and enhanced it by fostering the adoration of nudity and all things "natural". But what Nazism referred to as "nature" was not natural at all.

It was an aesthetic of decadence and evil (though it was not perceived this way by the Nazis), carefully orchestrated, and artificial. Nazism was about reproduced copies, not about originals. It was about the manipulation of symbols - not about veritable atavism.

In short: Nazism was about theatre, not about life. To enjoy the spectacle (and be subsumed by it), Nazism demanded the suspension of judgment, depersonalization, and de-realization. Catharsis was tantamount, in Nazi dramaturgy, to self-annulment. Nazism was nihilistic not only operationally, or ideologically. Its very language and narratives were nihilistic. Nazism was conspicuous nihilism - and Hitler served as a role model, annihilating Hitler the Man, only to re-appear as Hitler the stychia.

What was the role of the Jews in all this?

Nazism posed as a rebellion against the "old ways" - against the hegemonic culture, the upper classes, the established religions, the superpowers, the European order. The Nazis borrowed the Leninist vocabulary and assimilated it effectively. Hitler and the Nazis were an adolescent movement, a reaction to narcissistic injuries inflicted upon a narcissistic (and rather psychopathic) toddler nation-state. Hitler himself was a malignant narcissist, as Fromm correctly noted.

The Jews constituted a perfect, easily identifiable, embodiment of all that was "wrong" with Europe. They were an old nation, they were eerily disembodied (without a territory), they were cosmopolitan, they were part of the establishment, they were "decadent", they were hated on religious and socio-economic grounds (see Goldhagen's "Hitler's Willing Executioners"), they were different, they were narcissistic (felt and acted as morally superior), they were everywhere, they were defenseless, they were credulous, they were adaptable (and thus could be co-opted to collaborate in their own destruction). They were the perfect hated father figure and parricide was in fashion.

This is precisely the source of the fascination with Hitler. He was an inverted human. His unconscious was his conscious. He acted out our most repressed drives, fantasies, and wishes. He provides us with a glimpse of the horrors that lie beneath the veneer, the barbarians at our personal gates, and what it was like before we invented civilization. Hitler forced us all through a time warp and many did not emerge. He was not the devil. He was one of us. He was what Arendt aptly called the banality of evil. Just an ordinary, mentally disturbed,

failure, a member of a mentally disturbed and failing nation, who lived through disturbed and failing times. He was the perfect mirror, a channel, a voice, and the very depth of our souls.

Necessity

Some things are logically possible (LP). Others are physically possible (PP) and yet others are Physically Actual (PA). The things that are logically necessary (LN) are excluded from this discussion because they constitute a meta-level: they result from the true theorems in the logical systems within which LP, PP and PA reside. In other words: the LN are about relationships between the three other categories. The interactions between the three categories (LP, PP, PA) yield the LN through the application of the rules (and theorems) of the logical system within which all four reside. We are, therefore, faced with six questions. The answers to three of them we know – the answers to the other three are a great mystery.

The questions are:

a. Is every LP also PP?

b. Is every LP also PA?

c. Is every PP also PA?

d. Is every PP also LP?

e. Is every PA also LP?

f. Is every PA also PP?

Every PP must be also LP. The physical world is ruled by the laws of nature which are organized in logical systems. The rules of nature are all LP and whatever obeys them

must also be LP. Whatever is PA must be PP (otherwise it will not have actualized). Since every PP is also LP – every PA must also be LP. And, of course, nothing impossible can actually exist – so, every PA must also be PP.

That something exists implies that it must also be possible. But what is the relationship between necessity and existence? If something is necessary – does it mean that it must exist? It would seem so. And if something exists – does it mean that it was necessary? Not necessarily. It really depends on how one chooses to define necessity. A thought system can be constructed in which if something exists, it implies its necessity. An example: evolutionary adaptations. If an organism acquired some organ or trait – it exists because it was deemed necessary by evolution. And thought systems can be constructed in which if something is of necessity – it does not necessarily mean that it will exist. Consider human society.

There are six modes of possibility:

1. Logical (something is possible if its negation constitutes a contradiction, a logical impossibility);

2. Metaphysical (something is possible if it is consistent with metaphysical necessities);

3. Nomological (something is possible if it is consistent with scientific laws);

4. Epistemological (something is possible if it sits well with what we already know);

5. Temporal (something is possible if it is consistent

with past truths);

6. Something is possible if it is conceivable to a rational agent.

Most of these modes can be attacked on various grounds.

a. There are impossible things whose negation would also yield a contradiction.

b. We can commit errors in identifying metaphysical necessities (because they are a-posteriori, empirically derived). A metaphysical necessity is an objective one and is stronger than a logical necessity. Still it can be subject to an a posteriori discovery, from experience. And experience can lead to error.

c. Scientific laws are transient approximations which are doomed to be replaced by other scientific laws as contradicting data accumulates (the underdetermination of scientific theories by data).

d. What we already know is by definition very limited, prone to mistakes and misunderstandings and a very poor guide to judging the possibility or impossibility of things. Quantum mechanics is still considered counter-intuitive by many and against most of the things that we "know" (though this is a bad examples: many things that we know tend to support it, like the results of experiments in particles).

e. The temporal version assumes the linearity of the world – the past as an absolutely reliable predictor of the future. This, of course, is never the case. Things are possible which never happened before

and do not sit well with past "truths".

f. This seems to be the strongest version – but, alas, it is a circular one. We judge the possibility of something by asking ourselves (=rational agents) if it is conceivable. Our answer to the latter question determines our answer to the former – a clear tautology.

To answer the first three of the six questions that opened our article – we need to notice that it is sufficient to answer any two of them. The third will be immediately derivable from the answers. Let us concentrate on the first and the third ones: Is every LP also PP and is every PP also PA?

There seems to be a wall-to-wall consensus today that every PP is also PA. One of the interpretations to quantum mechanics (known as the "Many Worlds" interpretation) claims that with every measurement of a quantum event – the universe splits. In one resulting universe, the measurement has occurred with a given result, in another – the measurement has yielded a different result and in one of these universes the measurement did not take place at all. These are REAL universes, almost identical worlds with one thing setting them apart: the result of the measurement (its very existence in one case). By extension, any event (microcosmic or macrocosmic) will split the universe similarly. While the Many Worlds interpretation remained in the fringes of institutionalized physics – not so the "possible worlds" interpretation in formal logic and in formal semantics.

Leibniz was ridiculed (by Voltaire) for his "the best of all possible worlds" assertion (God selected the best of all possible worlds because, by his nature, he is good). But he

prevailed. A necessary truth – logicians say today – must by necessity be true in all possible worlds. When we say "it is possible that something" – we mean to say: "there is a world in which there this something exists". And "this something is necessary" is taken to mean: "this something exists in all possible worlds". The prominent logician, David Lewis postulated that all the possible worlds are actual and are spatio-temporally separated. Propositions are designations of sets of possible worlds in which the propositions are true. A property (being tall, for instance) is not a universal – but a set of possible individuals carrying this property, to whom the relevant predicate applies. Lewis demonstrated rather conclusively that is no point in using possible worlds – unless they exist somewhere. A logical necessity, therefore, would be a logical proposition which is true in all the logically possible worlds. According to Lewis's S5 logical modality system, if a proposition is possible – it is necessarily possible. This is because if it true in some possible world – then, perforce, in every possible world it must be true that the proposition is true in some possible world. Models of T validity reasonably confine the sweep of S5 to worlds which are accessible – rather to all the possible worlds. Still, all validation methods assume (axiomatically, in essence) that necessity is truth.

Is every LP also PP? I think that the answer must be positive. Logic is a construct of our brains. Our brains are physical system, subject to the laws of physics. If something is LP but not PP – it would not have been able to appear or to otherwise interact with a physical system. Only PP entities can interact with PA entities (such as our brains are). Thus, every logically possible thing must form in the brain. It can do so, only if it is physically possible – really, only, if in some limited way, it is also physically

actual. The physically possible is the blueprint of the physically actual. It is as PP (PA blueprints) that they interact with our PA brain to produce the LP (and later on, the PA). This is the process of human discovery and invention and a succinct summary of what we fondly call: "civilization".

O

Originality

There is an often missed distinction between Being the First, Being Original, and Being Innovative.

To determine that someone (or something) has been the first, we need to apply a temporal test. It should answer at least three questions: what exactly was done, when exactly was it done and was this ever done before.

To determine whether someone (or something) is original – a test of substance has to be applied. It should answer at least the following questions: what exactly was done, when exactly was it done and was this ever done before.

To determine if someone (or something) is innovative – a practical test has to be applied. It should answer at least the following questions: what exactly was done, in which way was it done and was exactly this ever done before in exactly the same way.

Reviewing the tests above leads us to two conclusions:

1. Being first and being original are more closely linked than being first and being innovative or than being original and being innovative. The tests applied to determine "firstness" and originality are the same.

2. Though the tests are the same, the emphasis is not. To determine whether someone or something is a first, we primarily ask "when" - while to determine originality we primarily ask "what".

Innovation helps in the conservation of resources and, therefore, in the delicate act of human survival. Being first demonstrates feasibility ("it is possible"). By being original, what is needed or can be done is expounded upon. And by being innovative, the practical aspect is revealed: how should it be done.

Society rewards these pathfinders with status and lavishes other tangible and intangible benefits upon them - mainly upon the Originators and the Innovators. The Firsts are often ignored because they do not directly open a new path – they merely demonstrate that such a path is there. The Originators and the Innovators are the ones who discover, expose, invent, put together, or verbalize something in a way which enables others to repeat the feat (really to reconstruct the process) with a lesser investment of effort and resources.

It is possible to be First and not be Original. This is because Being First is context dependent. For instance: had I traveled to a tribe in the Amazon forests and quoted a speech of Kennedy to them – I would hardly have been original but I would definitely have been the first to have done so in that context (of that particular tribe at that particular time). Popularizers of modern science and religious missionaries are all first at doing their thing - but they are not original. It is their audience which determines their First-ness – and history which proves their (lack of) originality.

Many of us reinvent the wheel. It is humanly impossible to be aware of all that was written and done by others before us. Unaware of the fact that we are not the first, neither original or innovative - we file patent applications, make "discoveries" in science, exploit (not so) "new" themes in the arts.

Society may judge us differently than we perceive ourselves to be - less original and innovative. Hence, perhaps, is the syndrome of the "misunderstood genius". Admittedly, things are easier for those of us who use words as their raw material: there are so many permutations, that the likelihood of not being first or innovative with words is minuscule. Hence the copyright laws.

Yet, since originality is measured by the substance of the created (idea) content, the chances of being original as well as first are slim. At most, we end up restating or re-phrasing old ideas. The situation is worse (and the tests more rigorous) when it comes to non-verbal fields of human endeavor, as any applicant for a patent can attest.

But then surely this is too severe! Don't we all stand on the shoulders of giants? Can one be original, first, even innovative without assimilating the experience of past generations? Can innovation occur in vacuum, discontinuously and disruptively? Isn't intellectual continuity a prerequisite?

True, a scientist innovates, explores, and discovers on the basis of (a limited and somewhat random) selection of previous explorations and research. He even uses equipment – to measure and perform other functions – that was invented by his predecessors. But progress and advance are conceivable without access to the treasure troves of the past. True again, the very concept of progress entails comparison with the past. But language, in this case, defies reality. Some innovation comes "out of the blue" with no "predecessors".

Scientific revolutions are not smooth evolutionary processes (even biological evolution is no longer

considered a smooth affair). They are phase transitions, paradigmatic changes, jumps, fits and starts rather than orderly unfolding syllogisms (Kuhn: "The Structure of Scientific Revolutions").

There is very little continuity in quantum mechanics (or even in the Relativity Theories). There is even less in modern genetics and immunology. The notion of laboriously using building blocks to construct an ebony tower of science is not supported by the history of human knowledge. And what about the first human being who had a thought or invented a device – on what did he base himself and whose work did he continue?

Innovation is the father of new context. Original thoughts shape the human community and the firsts among us dictate the rules of the game. There is very little continuity in the discontinuous processes called invention and revolution. But our reactions to new things and adaptation to the new world in their wake essentially remain the same. It is there that continuity is to be found.

Others, Happiness of

Is there any necessary connection between our actions and the happiness of others? Disregarding for a moment the murkiness of the definitions of "actions" in philosophical literature - two types of answers were hitherto provided.

Sentient Beings (referred to, in this essay, as "Humans" or "persons") seem either to limit each other - or to enhance each other's actions. Mutual limitation is, for instance, evident in game theory. It deals with decision outcomes when all the rational "players" are fully aware of both the outcomes of their actions and of what they prefer these outcomes to be. They are also fully informed about the

other players: they know that they are rational, too, for instance. This, of course, is a very farfetched idealization. A state of unbounded information is nowhere and never to be found. Still, in most cases, the players settle down to one of the Nash equilibria solutions. Their actions are constrained by the existence of the others.

The "Hidden Hand" of Adam Smith (which, among other things, benignly and optimally regulates the market and the price mechanisms) - is also a "mutually limiting" model. Numerous single participants strive to maximize their (economic and financial) outcomes - and end up merely optimizing them. The reason lies in the existence of others within the "market". Again, they are constrained by other people's motivations, priorities ands, above all, actions.

All the consequentialist theories of ethics deal with mutual enhancement. This is especially true of the Utilitarian variety. Acts (whether judged individually or in conformity to a set of rules) are moral, if their outcome increases utility (also known as happiness or pleasure). They are morally obligatory if they maximize utility and no alternative course of action can do so. Other versions talk about an "increase" in utility rather than its maximization. Still, the principle is simple: for an act to be judged "moral, ethical, virtuous, or good" - it must influence others in a way which will "enhance" and increase their happiness.

The flaws in all the above answers are evident and have been explored at length in the literature. The assumptions are dubious (fully informed participants, rationality in decision making and in prioritizing the outcomes, etc.). All the answers are instrumental and quantitative: they strive to offer a moral measuring rod. An "increase"

entails the measurement of two states: before and after the act. Moreover, it demands full knowledge of the world and a type of knowledge so intimate, so private - that it is not even sure that the players themselves have conscious access to it. Who goes around equipped with an exhaustive list of his priorities and another list of all the possible outcomes of all the acts that he may commit?

But there is another, basic flaw: these answers are descriptive, observational, phenomenological in the restrictive sense of these words. The motives, the drives, the urges, the whole psychological landscape behind the act are deemed irrelevant. The only thing relevant is the increase in utility/happiness. If the latter is achieved - the former might as well not have existed. A computer, which increases happiness is morally equivalent to a person who achieves a quantitatively similar effect. Even worse: two persons acting out of different motives (one malicious and one benevolent) will be judged to be morally equivalent if their acts were to increase happiness similarly.

But, in life, an increase in utility or happiness or pleasure is CONDITIONED upon, is the RESULT of the motives behind the acts that led to it. Put differently: the utility functions of two acts depend decisively on the motivation, drive, or urge behind them. The process, which leads to the act is an inseparable part of the act and of its outcomes, including the outcomes in terms of the subsequent increase in utility or happiness. We can safely distinguish the "utility contaminated" act from the "utility pure (or ideal)" act.

If a person does something which is supposed to increase the overall utility - but does so in order to increase his own utility more than the expected average utility increase - the resulting increase will be lower. The maximum

utility increase is achieved overall when the actor forgoes all increase in his personal utility. It seems that there is a constant of utility increase and a conservation law pertaining to it. So that a disproportionate increase in one's personal utility translates into a decrease in the overall average utility. It is not a zero sum game because of the infiniteness of the potential increase - but the rules of distribution of the utility added after the act, seem to dictate an averaging of the increase in order to maximize the result.

The same pitfalls await these observations as did the previous ones. The players must be in the possession of full information at least regarding the motivation of the other players. "Why is he doing this?" and "why did he do what he did?" are not questions confined to the criminal courts. We all want to understand the "why's" of actions long before we engage in utilitarian calculations of increased utility. This also seems to be the source of many an emotional reaction concerning human actions. We are envious because we think that the utility increase was unevenly divided (when adjusted for efforts invested and for the prevailing cultural mores). We suspect outcomes that are "too good to be true". Actually, this very sentence proves my point: that even if something produces an increase in overall happiness it will be considered morally dubious if the motivation behind it remains unclear or seems to be irrational or culturally deviant.

Two types of information are, therefore, always needed: one (discussed above) concerns the motives of the main protagonists, the act-ors. The second type relates to the world. Full knowledge about the world is also a necessity: the causal chains (actions lead to outcomes), what increases the overall utility or happiness and for whom,

etc. To assume that all the participants in an interaction possess this tremendous amount of information is an idealization (used also in modern theories of economy), should be regarded as such and not be confused with reality in which people approximate, estimate, extrapolate and evaluate based on a much more limited knowledge.

Two examples come to mind:

Aristotle described the "Great Soul". It is a virtuous agent (actor, player) that judges himself to be possessed of a great soul (in a self-referential evaluative disposition). He has the right measure of his worth and he courts the appreciation of his peers (but not of his inferiors) which he believes that he deserves by virtue of being virtuous. He has a dignity of demeanour, which is also very self-conscious. He is, in short, magnanimous (for instance, he forgives his enemies their offences). He seems to be the classical case of a happiness-increasing agent - but he is not. And the reason that he fails in qualifying as such is that his motives are suspect. Does he refrain from assaulting his enemies because of charity and generosity of spirit - or because it is likely to dent his pomposity? It is sufficient that a POSSIBLE different motive exist - to ruin the utilitarian outcome.

Adam Smith, on the other hand, adopted the spectator theory of his teacher Francis Hutcheson. The morally good is a euphemism. It is really the name provided to the pleasure, which a spectator derives from seeing a virtue in action. Smith added that the reason for this emotion is the similarity between the virtue observed in the agent and the virtue possessed by the observer. It is of a moral nature because of the object involved: the agent tries to consciously conform to standards of behaviour which will not harm the innocent, while, simultaneously benefiting

himself, his family and his friends. This, in turn, will benefit society as a whole. Such a person is likely to be grateful to his benefactors and sustain the chain of virtue by reciprocating. The chain of good will, thus, endlessly multiply.

Even here, we see that the question of motive and psychology is of utmost importance. WHY is the agent doing what he is doing? Does he really conform to society's standards INTERNALLY? Is he GRATEFUL to his benefactors? Does he WISH to benefit his friends? These are all questions answerable only in the realm of the mind. Really, they are not answerable at all.

P-Q

Parapsychology and the Paranormal

I. Introduction

The words "supernatural", "paranormal", and "parapsychology" are prime examples of oxymorons. Nature, by its extended definition, is all-inclusive and all-pervasive. Nothing is outside its orbit and everything that is logically and physically possible is within its purview. If something exists and occurs then, ipso facto, it is normal (or abnormal, but never para or "beyond" the normal). Psychology is the science of human cognition, emotion, and behavior. No human phenomenon evades its remit.

As if in belated recognition of this truism, PEAR (the Princeton Engineering Anomalies Research laboratory), the ESP (Extra-Sensory Perception) research outfit at Princeton University, established in 1979, closed down in February 2007.

The arguments of the proponents of the esoteric "sciences", Parapsychology included, boil down to these:

(1) That the human mind can alter the course of events and affect objects (including other people's brains) voluntarily (e.g., telekinesis or telepathy) or involuntarily (e.g., poltergeist);

(2) That current science is limited (for instance, by its commitment to causation) and therefore is structurally unable to discern, let alone explain, the existence of certain phenomena (such as remote viewing or precognition). This implies that everything has natural

causes and that we are in a perpetual state of receding ignorance, in the throes of an asymptotic quest for the truth. Sooner or later, that which is now perplexing, extraordinary, "miraculous", and unexplained (protoscience) will be incorporated into science and be fully accounted for;

(3) That science is dogmatically biased against and, therefore, delinquent in its investigation of certain phenomena, objects, and occurrences (such as Voodoo, magic, and UFOs - Unidentified Flying Objects).

These claims of Parapsychology echo the schism that opened in the monotheistic religions (and in early Buddhism) between the profane and the sacred, the here and the beyond. Not surprisingly, many of the first spiritualists were ministers and other functionaries of Christian Churches.

Three historic developments contributed to the propagation and popularity of psychical research:

(1) The introduction into Parapsychology of scientific methods of observation, experimentation, and analysis (e.g., the use of statistics and probability in the studies conducted at the Parapsychology Laboratory of North Carolina's Duke University by the American psychologist Joseph Banks Rhine and in the more recent remote viewing ganzfeld sensory deprivation experiments);

(2) The emergence of counter-intuitive models of reality, especially in physics, incorporating such concepts as nonlocal action-at-a-distance (e.g., Bell's theorem), emergentism, multiverses, hidden dimensions, observer effects ("mind over matter"), and creation ex nihilo. These models are badly understood by laymen and have led to

the ostensible merger of physics and metaphysics;

(3) The eventual acceptance by the scientific community and incorporation into the mainstream of science of phenomena that were once considered paranormal and then perinormal (e.g., hypnotism).

As many scholars noted, psi (psychic) and other anomalous phenomena and related experiments can rarely be reproduced in rigorous laboratory settings. Though at least 130 years old, the field generated no theories replete with falsifiable predictions. Additionally, the deviation of finite sets of data (e.g., the number of cards correctly guessed by subjects) from predictions yielded by the laws of probability - presented as the field's trump card - is nothing out of the ordinary. Furthermore, statistical significance and correlation should not be misconstrued as proofs of cause and effect.

Consequently, there is no agreement as to what constitutes a psi event.

Still, these are weak refutations. They apply with equal force to the social "sciences" (e.g., to economics and psychology) and even to more robust fields like biology or medicine. Yet no one disputes the existence of economic behavior or the human psyche.

II. Scientific Theories

All theories - scientific or not - start with a problem. They aim to solve it by proving that what appears to be "problematic" is not. They re-state the conundrum, or introduce new data, new variables, a new classification, or new organizing principles. They incorporate the problem in a larger body of knowledge, or in a conjecture ("solution"). They explain why we thought we had an

issue on our hands - and how it can be avoided, vitiated, or resolved.

Scientific theories invite constant criticism and revision. They yield new problems. They are proven erroneous and are replaced by new models which offer better explanations and a more profound sense of understanding - often by solving these new problems. From time to time, the successor theories constitute a break with everything known and done till then. These seismic convulsions are known as "paradigm shifts".

Contrary to widespread opinion - even among scientists - science is not only about "facts". It is not merely about quantifying, measuring, describing, classifying, and organizing "things" (entities). It is not even concerned with finding out the "truth". Science is about providing us with concepts, explanations, and predictions (collectively known as "theories") and thus endowing us with a sense of understanding of our world.

Scientific theories are allegorical or metaphoric. They revolve around symbols and theoretical constructs, concepts and substantive assumptions, axioms and hypotheses - most of which can never, even in principle, be computed, observed, quantified, measured, or correlated with the world "out there". By appealing to our imagination, scientific theories reveal what David Deutsch calls "the fabric of reality".

Like any other system of knowledge, science has its fanatics, heretics, and deviants.

Instrumentalists, for instance, insist that scientific theories should be concerned exclusively with predicting the outcomes of appropriately designed experiments. Their

explanatory powers are of no consequence. Positivists ascribe meaning only to statements that deal with observables and observations.

Instrumentalists and positivists ignore the fact that predictions are derived from models, narratives, and organizing principles. In short: it is the theory's explanatory dimensions that determine which experiments are relevant and which are not. Forecasts - and experiments - that are not embedded in an understanding of the world (in an explanation) do not constitute science.

Granted, predictions and experiments are crucial to the growth of scientific knowledge and the winnowing out of erroneous or inadequate theories. But they are not the only mechanisms of natural selection. There are other criteria that help us decide whether to adopt and place confidence in a scientific theory or not. Is the theory aesthetic (parsimonious), logical, does it provide a reasonable explanation and, thus, does it further our understanding of the world?

David Deutsch in "The Fabric of Reality" (p. 11):

"... (I)t is hard to give a precise definition of 'explanation' or 'understanding'. Roughly speaking, they are about 'why' rather than 'what'; about the inner workings of things; about how things really are, not just how they appear to be; about what must be so, rather than what merely happens to be so; about laws of nature rather than rules of thumb. They are also about coherence, elegance, and simplicity, as opposed to arbitrariness and complexity ..."

Reductionists and emergentists ignore the existence of a hierarchy of scientific theories and meta-languages. They

believe - and it is an article of faith, not of science - that complex phenomena (such as the human mind) can be reduced to simple ones (such as the physics and chemistry of the brain). Furthermore, to them the act of reduction is, in itself, an explanation and a form of pertinent understanding. Human thought, fantasy, imagination, and emotions ***are*** nothing but electric currents and spurts of chemicals in the brain, they say.

Holists, on the other hand, refuse to consider the possibility that some higher-level phenomena can, indeed, be fully reduced to base components and primitive interactions. They ignore the fact that reductionism sometimes does provide explanations and understanding. The properties of water, for instance, do spring forth from its chemical and physical composition and from the interactions between its constituent atoms and subatomic particles.

Still, there is a general agreement that scientific theories must be abstract (independent of specific time or place), intersubjectively explicit (contain detailed descriptions of the subject matter in unambiguous terms), logically rigorous (make use of logical systems shared and accepted by the practitioners in the field), empirically relevant (correspond to results of empirical research), useful (in describing and/or explaining the world), and provide typologies and predictions.

A scientific theory should resort to primitive (atomic) terminology and all its complex (derived) terms and concepts should be defined in these indivisible terms. It should offer a map unequivocally and consistently connecting operational definitions to theoretical concepts.

Operational definitions that connect to the same

theoretical concept should not contradict each other (be negatively correlated). They should yield agreement on measurement conducted independently by trained experimenters. But investigation of the theory of its implication can proceed even without quantification.

Theoretical concepts need not necessarily be measurable or quantifiable or observable. But a scientific theory should afford at least four levels of quantification of its operational and theoretical definitions of concepts: nominal (labeling), ordinal (ranking), interval and ratio.

As we said, scientific theories are not confined to quantified definitions or to a classificatory apparatus. To qualify as scientific they must contain statements about relationships (mostly causal) between concepts - empirically-supported laws and/or propositions (statements derived from axioms).

Philosophers like Carl Hempel and Ernest Nagel regard a theory as scientific if it is hypothetico-deductive. To them, scientific theories are sets of inter-related laws. We know that they are inter-related because a minimum number of axioms and hypotheses yield, in an inexorable deductive sequence, everything else known in the field the theory pertains to.

Explanation is about retrodiction - using the laws to show how things happened. Prediction is using the laws to show how things ***will*** happen. Understanding is explanation and prediction combined.

William Whewell augmented this somewhat simplistic point of view with his principle of "consilience of inductions". Often, he observed, inductive explanations of disparate phenomena are unexpectedly traced to one

underlying cause. This is what scientific theorizing is about - finding the common source of the apparently separate.

This omnipotent view of the scientific endeavor competes with a more modest, semantic school of philosophy of science.

Many theories - especially ones with breadth, width, and profundity, such as Darwin's theory of evolution - are not deductively integrated and are very difficult to test (falsify) conclusively. Their predictions are either scant or ambiguous.

Scientific theories, goes the semantic view, are amalgams of models of reality. These are empirically meaningful only inasmuch as they are empirically (directly and therefore semantically) applicable to a limited area. A typical scientific theory is not constructed with explanatory and predictive aims in mind. Quite the opposite: the choice of models incorporated in it dictates its ultimate success in explaining the Universe and predicting the outcomes of experiments.

III. Parapsychology as anti-science

Science deals with generalizations (the generation of universal statements known as laws) based on singular existential statements (founded, in turn, on observations). Every scientific law is open to falsification: even one observation that contravenes it is sufficient to render it invalid (a process known in formal logic as modus tollens).

In contrast, Parapsychology deals exclusively with anomalous phenomena - observations that invalidate and falsify scientific laws. By definition these don't lend

themselves to the process of generation of testable hypotheses. One cannot come up with a scientific theory of exceptions.

Parapsychological phenomena - once convincingly demonstrated in laboratory settings - can help to upset current scientific laws and theories. They cannot however yield either because they cannot be generalized and they do not need to be falsified (they are already falsified by the prevailing paradigms, laws, and theories of science). These shortcomings render deficient and superfluous the only construct that comes close to a Parapsychological hypothesis - the psi assumption.

Across the fence, pseudo-skeptics are trying to prove (to produce evidence) that psi phenomena do not exist. But, while it is trivial to demonstrate that some thing or event exists or existed - it is impossible to show that some thing or event does not exist or was never extant. The skeptics' anti-Parapsychology agenda is, therefore, fraught with many of the difficulties that bedevil the work of psychic researchers.

IV. The Problem of Human Subjects

Can Parapsychology generate a scientific theory (either prescriptive or descriptive)?

Let us examine closely the mental phenomena collectively known as ESP - extrasensory perception (telepathy, clairvoyance, precognition, retrocognition, remote viewing, psychometry, xenoglossy, mediumism, channeling, clairaudience, clairsentience, and possession).

The study of these alleged phenomena is not an exact "science", nor can it ever be. This is because the "raw material" (human beings and their behavior as individuals

and en masse) is fuzzy. Such a discipline will never yield natural laws or universal constants (like in physics).

Experimentation in the field is constrained by legal and ethical rules. Human subjects tend to be opinionated, develop resistance, and become self-conscious when observed. Even ESP proponents admit that results depend on the subject's mental state and on the significance attributed by him to events and people he communicates with.

These core issues cannot be solved by designing less flawed, better controlled, and more rigorous experiments or by using more powerful statistical evaluation techniques.

To qualify as meaningful and instrumental, any Parapsychological explanation (or "theory") must be:

a. ***All-inclusive (anamnetic)*** – It must encompass, integrate and incorporate all the facts known.

b. ***Coherent*** – It must be chronological, structured and causal.

c. ***Consistent*** – Self-consistent (its sub-units cannot contradict one another or go against the grain of the main explication) and consistent with the observed phenomena (both those related to the event or subject and those pertaining to the rest of the universe).

d. ***Logically compatible*** – It must not violate the laws of logic both internally (the explanation must abide by some internally imposed logic) and externally (the Aristotelian logic which is applicable to the observable world).

e. ***Insightful*** – It must inspire a sense of awe and astonishment which is the result of seeing something familiar in a new light or the result of seeing a pattern emerging out of a big body of data. The insights must constitute the inevitable conclusion of the logic, the language, and of the unfolding of the explanation.

f. ***Aesthetic*** – The explanation must be both plausible and "right", beautiful, not cumbersome, not awkward, not discontinuous, smooth, parsimonious, simple, and so on.

g. ***Parsimonious*** – The explanation must employ the minimum numbers of assumptions and entities in order to satisfy all the above conditions.

h. ***Explanatory*** – The explanation must elucidate the behavior of other elements, including the subject's decisions and behavior and why events developed the way they did.

i. ***Predictive (prognostic)*** – The explanation must possess the ability to predict future events, including the future behavior of the subject.

j.

k. ***Elastic*** – The explanation must possess the intrinsic abilities to self organize, reorganize, give room to emerging order, accommodate new data comfortably, and react flexibly to attacks from within and from without.

In all these respects, Parapsychological explanations can qualify as scientific theories: they both satisfy most of the above conditions. But this apparent similarity is misleading.

Scientific theories must also be testable, verifiable, and refutable (falsifiable). The experiments that test their predictions must be repeatable and replicable in tightly controlled laboratory settings. All these elements are largely missing from Parapsychological "theories" and explanations. No experiment could be designed to test the statements within such explanations, to establish their truth-value and, thus, to convert them to theorems or hypotheses in a theory.

There are four reasons to account for this inability to test and prove (or falsify) Parapsychological theories:

1. ***Ethical*** – To achieve results, subjects have to be ignorant of the reasons for experiments and their aims. Sometimes even the very fact that an experiment is taking place has to remain a secret (double blind experiments). Some experiments may involve unpleasant or even traumatic experiences. This is ethically unacceptable.

2. ***The Psychological Uncertainty Principle*** – The initial state of a human subject in an experiment is usually fully established. But the very act of experimentation, the very processes of measurement and observation invariably influence and affect the participants and render this knowledge irrelevant.

3. ***Uniqueness*** – Parapsychological experiments are, therefore, bound to be unique. They cannot be repeated or replicated elsewhere and at other times even when they are conducted with the ***SAME*** subjects (who are no longer the same owing to the effects of their participation). This is due to the aforementioned psychological uncertainty

principle. Repeating the experiments with other subjects adversely affects the scientific value of the results.

4. ***The undergeneration of testable hypotheses*** – Parapsychology does not generate a sufficient number of hypotheses, which can be subjected to scientific testing. This has to do with its fabulous (i.e., storytelling) nature. In a way, Parapsychology has affinity with some private languages. It is a form of art and, as such, is self-sufficient and self-contained. If structural, internal constraints are met, a statement is deemed true within the Parapsychology "canon" even if it does not satisfy external scientific requirements.

Parenthood

The advent of cloning, surrogate motherhood, and the donation of gametes and sperm have shaken the traditional biological definition of parenthood to its foundations. The social roles of parents have similarly been recast by the decline of the nuclear family and the surge of alternative household formats.

Why do people become parents in the first place?

Raising children comprises equal measures of satisfaction and frustration. Parents often employ a psychological defense mechanism - known as "cognitive dissonance" - to suppress the negative aspects of parenting and to deny the unpalatable fact that raising children is time consuming, exhausting, and strains otherwise pleasurable and tranquil relationships to their limits.

Not to mention the fact that the gestational mother

experiences ***"considerable discomfort, effort, and risk in the course of pregnancy and childbirth"*** (Narayan, U., and J.J. Bartkowiak (1999) ***Having and Raising Children: Unconventional Families, Hard Choices, and the Social Good*** University Park, PA: The Pennsylvania State University Press, Quoted in the Stanford Encyclopedia of Philosophy).

Parenting is possibly an irrational vocation, but humanity keeps breeding and procreating. It may well be the call of nature. All living species reproduce and most of them parent. Is maternity (and paternity) proof that, beneath the ephemeral veneer of civilization, we are still merely a kind of beast, subject to the impulses and hard-wired behavior that permeate the rest of the animal kingdom?

In his seminal tome, ***"The Selfish Gene"***, Richard Dawkins suggested that we copulate in order to preserve our genetic material by embedding it in the future gene pool. Survival itself - whether in the form of DNA, or, on a higher-level, as a species - determines our parenting instinct. Breeding and nurturing the young are mere safe conduct mechanisms, handing the precious cargo of genetics down generations of "organic containers".

Yet, surely, to ignore the epistemological and emotional realities of parenthood is misleadingly reductionistic. Moreover, Dawkins commits the scientific faux-pas of teleology. Nature has no purpose "in mind", mainly because it has no mind. Things simply are, period. That genes end up being forwarded in time does not entail that Nature (or, for that matter, "God") planned it this way. Arguments from design have long - and convincingly - been refuted by countless philosophers.

Still, human beings do act intentionally. Back to square

one: why bring children to the world and burden ourselves with decades of commitment to perfect strangers?

First hypothesis: offspring allow us to "delay" death. Our progeny are the medium through which our genetic material is propagated and immortalized. Additionally, by remembering us, our children "keep us alive" after physical death.

These, of course, are self-delusional, self-serving, illusions.

Our genetic material gets diluted with time. While it constitutes 50% of the first generation - it amounts to a measly 6% three generations later. If the everlastingness of one's unadulterated DNA was the paramount concern – incest would have been the norm.

As for one's enduring memory - well, do you recall or can you name your maternal or paternal great great grandfather? Of course you can't. So much for that. Intellectual feats or architectural monuments are far more potent mementos.

Still, we have been so well-indoctrinated that this misconception - that children equal immortality - yields a baby boom in each post war period. Having been existentially threatened, people multiply in the vain belief that they thus best protect their genetic heritage and their memory.

Let's study another explanation.

The utilitarian view is that one's offspring are an asset - kind of pension plan and insurance policy rolled into one. Children are still treated as a yielding property in many parts of the world. They plough fields and do menial jobs

very effectively. People "hedge their bets" by bringing multiple copies of themselves to the world. Indeed, as infant mortality plunges - in the better-educated, higher income parts of the world - so does fecundity.

In the Western world, though, children have long ceased to be a profitable proposition. At present, they are more of an economic drag and a liability. Many continue to live with their parents into their thirties and consume the family's savings in college tuition, sumptuous weddings, expensive divorces, and parasitic habits. Alternatively, increasing mobility breaks families apart at an early stage. Either way, children are not longer the founts of emotional sustenance and monetary support they allegedly used to be.

How about this one then:

Procreation serves to preserve the cohesiveness of the family nucleus. It further bonds father to mother and strengthens the ties between siblings. Or is it the other way around and a cohesive and warm family is conductive to reproduction?

Both statements, alas, are false.

Stable and functional families sport far fewer children than abnormal or dysfunctional ones. Between one third and one half of all children are born in single parent or in other non-traditional, non-nuclear - typically poor and under-educated - households. In such families children are mostly born unwanted and unwelcome - the sad outcomes of accidents and mishaps, wrong fertility planning, lust gone awry and misguided turns of events.

The more sexually active people are and the less safe their desirous exploits – the more they are likely to end up with

a bundle of joy (the American saccharine expression for a newborn). Many children are the results of sexual ignorance, bad timing, and a vigorous and undisciplined sexual drive among teenagers, the poor, and the less educated.

Still, there is no denying that most people want their kids and love them. They are attached to them and experience grief and bereavement when they die, depart, or are sick. Most parents find parenthood emotionally fulfilling, happiness-inducing, and highly satisfying. This pertains even to unplanned and initially unwanted new arrivals.

Could this be the missing link? Do fatherhood and motherhood revolve around self-gratification? Does it all boil down to the pleasure principle?

Childrearing may, indeed, be habit forming. Nine months of pregnancy and a host of social positive reinforcements and expectations condition the parents to do the job. Still, a living tot is nothing like the abstract concept. Babies cry, soil themselves and their environment, stink, and severely disrupt the lives of their parents. Nothing too enticing here.

One's spawns are a risky venture. So many things can and do go wrong. So few expectations, wishes, and dreams are realized. So much pain is inflicted on the parents. And then the child runs off and his procreators are left to face the "empty nest". The emotional "returns" on a child are rarely commensurate with the magnitude of the investment.

If you eliminate the impossible, what is left - however improbable - must be the truth. People multiply because it provides them with narcissistic supply.

A Narcissist is a person who projects a (false) image unto others and uses the interest this generates to regulate a labile and grandiose sense of self-worth. The reactions garnered by the narcissist - attention, unconditional acceptance, adulation, admiration, affirmation - are collectively known as "narcissistic supply". The narcissist objectifies people and treats them as mere instruments of gratification.

Infants go through a phase of unbridled fantasy, tyrannical behavior, and perceived omnipotence. An adult narcissist, in other words, is still stuck in his "terrible twos" and is possessed with the emotional maturity of a toddler. To some degree, we are all narcissists. Yet, as we grow, we learn to empathize and to love ourselves and others.

This edifice of maturity is severely tested by newfound parenthood.

Babies evokes in the parent the most primordial drives, protective, animalistic instincts, the desire to merge with the newborn and a sense of terror generated by such a desire (a fear of vanishing and of being assimilated). Neonates engender in their parents an emotional regression.

The parents find themselves revisiting their own childhood even as they are caring for the newborn. The crumbling of decades and layers of personal growth is accompanied by a resurgence of the aforementioned early infancy narcissistic defenses. Parents - especially new ones - are gradually transformed into narcissists by this encounter and find in their children the perfect sources of narcissistic supply, euphemistically known as love. Really it is a form of symbiotic codependence of both parties.

Even the most balanced, most mature, most psychodynamically stable of parents finds such a flood of narcissistic supply irresistible and addictive. It enhances his or her self-confidence, buttresses self esteem, regulates the sense of self-worth, and projects a complimentary image of the parent to himself or herself.

It fast becomes indispensable, especially in the emotionally vulnerable position in which the parent finds herself, with the reawakening and repetition of all the unresolved conflicts that she had with her own parents.

If this theory is true, if breeding is merely about securing prime quality narcissistic supply, then the higher the self confidence, the self esteem, the self worth of the parent, the clearer and more realistic his self image, and the more abundant his other sources of narcissistic supply - the fewer children he will have. These predictions are borne out by reality.

The higher the education and the income of adults – and, consequently, the firmer their sense of self worth - the fewer children they have. Children are perceived as counter-productive: not only is their output (narcissistic supply) redundant, they hinder the parent's professional and pecuniary progress.

The more children people can economically afford – the fewer they have. This gives the lie to the Selfish Gene hypothesis. The more educated they are, the more they know about the world and about themselves, the less they seek to procreate. The more advanced the civilization, the more efforts it invests in preventing the birth of children. Contraceptives, family planning, and abortions are typical of affluent, well informed societies.

The more plentiful the narcissistic supply afforded by other sources – the lesser the emphasis on breeding. Freud described the mechanism of sublimation: the sex drive, the Eros (libido), can be "converted", "sublimated" into other activities. All the sublimatory channels - politics and art, for instance - are narcissistic and yield narcissistic supply. They render children superfluous. Creative people have fewer children than the average or none at all. This is because they are narcissistically self sufficient.

The key to our determination to have children is our wish to experience the same unconditional love that we received from our mothers, this intoxicating feeling of being adored without caveats, for what we are, with no limits, reservations, or calculations. This is the most powerful, crystallized form of narcissistic supply. It nourishes our self-love, self worth and self-confidence. It infuses us with feelings of omnipotence and omniscience. In these, and other respects, parenthood is a return to infancy.

Parsimony

Occasionalism is a variation upon Cartesian metaphysics. The latter is the most notorious case of dualism (mind and body, for instance). The mind is a "mental substance". The body – a "material substance". What permits the complex interactions which happen between these two disparate "substances"? The "unextended mind" and the "extended body" surely cannot interact without a mediating agency, God. The appearance is that of direct interaction but this is an illusion maintained by Him. He moves the body when the mind is willing and places ideas in the mind when the body comes across other bodies. Descartes postulated that the mind is an active, unextended, thought while the body is a passive, unthinking extension. The First Substance

and the Second Substance combine to form the Third Substance, Man. God – the Fourth, uncreated Substance – facilitates the direct interaction among the two within the third. Foucher raised the question: how can God – a mental substance – interact with a material substance, the body. The answer offered was that God created the body (probably so that He will be able to interact with it). Leibnitz carried this further: his Monads, the units of reality, do not really react and interact. They just seem to be doing so because God created them with a pre-established harmony. The constant divine mediation was, thus, reduced to a one-time act of creation. This was considered to be both a logical result of occasionalism and its refutation by a reductio ad absurdum argument.

But, was the fourth substance necessary at all? Could not an explanation to all the known facts be provided without it? The ratio between the number of known facts (the outcomes of observations) and the number of theory elements and entities employed in order to explain them – is the parsimony ratio. Every newly discovered fact either reinforces the existing worldview – or forces the introduction of a new one, through a "crisis" or a "revolution" (a "paradigm shift" in Kuhn's abandoned phrase). The new worldview need not necessarily be more parsimonious. It could be that a single new fact precipitates the introduction of a dozen new theoretical entities, axioms and functions (curves between data points). The very delineation of the field of study serves to limit the number of facts, which could exercise such an influence upon the existing worldview and still be considered pertinent. Parsimony is achieved, therefore, also by affixing the boundaries of the intellectual arena and / or by declaring quantitative or qualitative limits of relevance and negligibility. The world is thus simplified

through idealization. Yet, if this is carried too far, the whole edifice collapses. It is a fine balance that should be maintained between the relevant and the irrelevant, what matters and what could be neglected, the comprehensiveness of the explanation and the partiality of the pre-defined limitations on the field of research.

This does not address the more basic issue of why do we prefer simplicity to complexity. This preference runs through history: Aristotle, William of Ockham, Newton, Pascal – all praised parsimony and embraced it as a guiding principle of work scientific. Biologically and spiritually, we are inclined to prefer things needed to things not needed. Moreover, we prefer things needed to admixtures of things needed and not needed. This is so, because things needed are needed, encourage survival and enhance its chances. Survival is also assisted by the construction of economic theories. We all engage in theory building as a mundane routine. A tiger beheld means danger – is one such theory. Theories which incorporated less assumptions were quicker to process and enhanced the chances of survival. In the aforementioned feline example, the virtue of the theory and its efficacy lie in its simplicity (one observation, one prediction). Had the theory been less parsimonious, it would have entailed a longer time to process and this would have rendered the prediction wholly unnecessary. The tiger would have prevailed. Thus, humans are Parsimony Machines (an Ockham Machine): they select the shortest (and, thereby, most efficient) path to the production of true theorems, given a set of facts (observations) and a set of theories. Another way to describe the activity of Ockham Machines: they produce the maximal number of true theorems in any given period of time, given a set of facts and a set of theories. Poincare, the French mathematician

and philosopher, thought that Nature itself, this metaphysical entity which encompasses all, is parsimonious. He believed that mathematical simplicity must be a sign of truth. A simple Nature would, indeed, appear this way (mathematically simple) despite the filters of theory and language. The "sufficient reason" (why the world exists rather than not exist) should then be transformed to read: "because it is the simplest of all possible worlds". That is to say: the world exists and THIS world exists (rather than another) because it is the most parsimonious – not the best, as Leibnitz put it – of all possible worlds.

Parsimony is a necessary (though not sufficient) condition for a theory to be labelled "scientific". But a scientific theory is neither a necessary nor a sufficient condition to parsimony. In other words: parsimony is possible within and can be applied to a non-scientific framework and parsimony cannot be guaranteed by the fact that a theory is scientific (it could be scientific and not parsimonious). Parsimony is an extra-theoretical tool. Theories are under-determined by data. An infinite number of theories fits any finite number of data. This happens because of the gap between the infinite number of cases dealt with by the theory (the application set) and the finiteness of the data set, which is a subset of the application set. Parsimony is a rule of thumb. It allows us to concentrate our efforts on those theories most likely to succeed. Ultimately, it allows us to select THE theory that will constitute the prevailing worldview, until it is upset by new data.

Another question arises which was not hitherto addressed: how do we know that we are implementing some mode of parsimony? In other words, which are the FORMAL requirements of parsimony?

The following conditions must be satisfied by any law or method of selection before it can be labelled "parsimonious":

a. Exploration of a higher level of causality – the law must lead to a level of causality, which will include the previous one and other, hitherto apparently unrelated phenomena. It must lead to a cause, a reason which will account for the set of data previously accounted for by another cause or reason AND for additional data. William of Ockham was, after all a Franciscan monk and constantly in search for a Prima Causa.

b. The law should either lead to, or be part of, an integrative process. This means that as previous theories or models are rigorously and correctly combined, certain entities or theory elements should be made redundant. Only those, which we cannot dispense with, should be left incorporated in the new worldview.

c. The outcomes of any law of parsimony should be successfully subjected to scientific tests. These results should correspond with observations and with predictions yielded by the worldviews fostered by the law of parsimony under scrutiny.

d. Laws of parsimony should be semantically correct. Their continuous application should bring about an evolution (or a punctuated evolution) of the very language used to convey the worldview, or at least of important language elements. The phrasing of the questions to be answered by the worldview should be influenced, as well. In extreme cases, a whole new language has to emerge, elaborated and

formulated in accordance with the law of parsimony. But, in most cases, there is just a replacement of a weaker language with a more powerful meta-language. Einstein's Special Theory of Relativity and Newtonian dynamics are a prime example of such an orderly lingual transition, which was the direct result of the courageous application of a law of parsimony.

e. Laws of parsimony should be totally subjected (actually, subsumed) by the laws of Logic and by the laws of Nature. They must not lead to, or entail, a contradiction, for instance, or a tautology. In physics, they must adhere to laws of causality or correlation and refrain from teleology.

f. Laws of parsimony must accommodate paradoxes. Paradox Accommodation means that theories, theory elements, the language, a whole worldview will have to be adapted to avoid paradoxes. The goals of a theory or its domain, for instance, could be minimized to avoid paradoxes. But the mechanism of adaptation is complemented by a mechanism of adoption. A law of parsimony could lead to the inevitable adoption of a paradox. Both the horns of a dilemma are, then, adopted. This, inevitably, leads to a crisis whose resolution is obtained through the introduction of a new worldview. New assumptions are parsimoniously adopted and the paradox disappears.

g. Paradox accommodation is an important hallmark of a true law of parsimony in operation. Paradox Intolerance is another. Laws of parsimony give theories and worldviews a "licence" to ignore paradoxes, which lie outside the domain covered

by the parsimonious set of data and rules. It is normal to have a conflict between the non-parsimonious sets and the parsimonious one. Paradoxes are the results of these conflicts and the most potent weapons of the non-parsimonious sets. But the law of parsimony, to deserve it name, should tell us clearly and unequivocally, when to adopt a paradox and when to exclude it. To be able to achieve this formidable task, every law of parsimony comes equipped with a metaphysical interpretation whose aim it is to plausibly keep nagging paradoxes and questions at a distance. The interpretation puts the results of the formalism in the context of a meaningful universe and provides a sense of direction, causality, order and even "intent". The Copenhagen interpretation of Quantum Mechanics is an important member of this species.

h. The law of parsimony must apply both to the theory entities AND to observable results, both part of a coherent, internally and externally consistent, logical (in short: scientific) theory. It is divergent-convergent: it diverges from strict correspondence to reality while theorizing, only to converge with it when testing the predictions yielded by the theory. Quarks may or may not exist – but their effects do, and these effects are observable.

i. A law of parsimony has to be invariant under all transformations and permutations of the theory entities. It is almost tempting to say that it should demand symmetry – had this not been merely an aesthetic requirement and often violated.

j. The law of parsimony should aspire to a minimization of the number of postulates, axioms, curves between data points, theory entities, etc. This is the principle of the maximization of uncertainty. The more uncertainty introduced by NOT postulating explicitly – the more powerful and rigorous the theory / worldview. A theory with one assumption and one theoretical entity – renders a lot of the world an uncertain place. The uncertainty is expelled by using the theory and its rules and applying them to observational data or to other theoretical constructs and entities. The Grand Unified Theories of physics want to get rid of four disparate powers and to gain one instead.

k. A sense of beauty, of aesthetic superiority, of acceptability and of simplicity should be the by-products of the application of a law of parsimony. These sensations have been often been cited, by practitioners of science, as influential factors in weighing in favour of a particular theory.

l. Laws of parsimony entail the arbitrary selection of facts, observations and experimental results to be related to and included in the parsimonious set. This is the parsimonious selection process and it is closely tied with the concepts of negligibility and with the methodology of idealization and reduction. The process of parsimonious selection is very much like a strategy in a game in which both the number of players and the rules of the game are finite. The entry of a new player (an observation, the result of an experiment) sometimes transforms the game and, at other times, creates a whole new game. All the players

are then moved into the new game, positioned there and subjected to its new rules. This, of course, can lead to an infinite regression. To effect a parsimonious selection, a theory must be available whose rules will dictate the selection. But such a theory must also be subordinated to a law of parsimony (which means that it has to parsimoniously select its own facts, etc.). a meta-theory must, therefore, exist, which will inform the lower-level theory how to implement its own parsimonious selection and so on and so forth, ad infinitum.

m. A law of parsimony falsifies everything that does not adhere to its tenets. Superfluous entities are not only unnecessary – they are, in all likelihood, false. Theories, which were not subjected to the tests of parsimony are, probably, not only non-rigorous but also positively false.

n. A law of parsimony must apply the principle of redundant identity. Two facets, two aspects, two dimensions of the same thing – must be construed as one and devoid of an autonomous standing, not as separate and independent.

o. The laws of parsimony are "back determined" and, consequently, enforce "back determination" on all the theories and worldviews to which they apply. For any given data set and set of rules, a number of parsimony sets can be postulated. To decide between them, additional facts are needed. These will be discovered in the future and, thus, the future "back determines" the right parsimony set. Either there is a finite parsimony group from which all the temporary groups are derived – or no

such group exists and an infinity of parsimony sets is possible, the results of an infinity of data sets. This, of course, is thinly veiled pluralism. In the former alternative, the number of facts / observations / experiments that are required in order to determine the right parsimony set is finite. But, there is a third possibility: that there is an eternal, single parsimony set and all our current parsimony sets are its asymptotic approximations. This is monism in disguise. Also, there seems to be an inherent (though solely intuitive) conflict between parsimony and infinity.

p. A law of parsimony must seen to be at conflict with the principle of multiplicity of substitutes. This is the result of an empirical and pragmatic observation: The removal of one theory element or entity from a theory – precipitates its substitution by two or more theory elements or entities (if the preservation of the theory is sought). It is this principle that is the driving force behind scientific crises and revolutions. Entities do multiply and Ockham's Razor is rarely used until it is too late and the theory has to be replaced in its entirety. This is a psychological and social phenomenon, not an inevitable feature of scientific progress. Worldviews collapse under the mere weight of their substituting, multiplying elements. Ptolmey's cosmology fell prey to the Copernican model not because it was more efficient, but because it contained less theory elements, axioms, equations. A law of parsimony must warn against such behaviour and restrain it or, finally, provide the ailing theory with a coup de grace.

q. A law of parsimony must allow for full convertibility of the phenomenal to the nuomenal and of the universal to the particular. Put more simply: no law of parsimony can allow a distinction between our data and the "real" world to be upheld. Nor can it tolerate the postulation of Platonic "Forms" and "Ideas" which are not entirely reflected in the particular.

r. A law of parsimony implies necessity. To assume that the world is contingent is to postulate the existence of yet another entity upon which the world is dependent for its existence. It is to theorize on yet another principle of action. Contingency is the source of entity multiplication and goes against the grain of parsimony. Of course, causality should not be confused with contingency. The former is deterministic – the latter the result of some kind of free will.

s. The explicit, stated, parsimony, the one formulated, formalized and analysed, is connected to an implicit, less evident sort and to latent parsimony. Implicit parsimony is the set of rules and assumptions about the world that are known as formal logic. The latent parsimony is the set of rules that allows for a (relatively) smooth transition to be effected between theories and worldviews in times of crisis. Those are the rules of parsimony, which govern scientific revolutions. The rule stated in article (a) above is a latent one: that in order for the transition between old theories and new to be valid, it must also be a transition between a lower level of causality – and a higher one.

Efficient, workable, parsimony is either obstructed, or merely not achieved through the following venues of action:

a. Association – the formation of networks of ideas, which are linked by way of verbal, intuitive, or structural association, does not lead to more parsimonious results. Naturally, a syntactic, grammatical, structural, or other theoretical rule can be made evident by the results of this technique. But to discern such a rule, the scientist must distance himself from the associative chains, to acquire a bird's eye view , or, on the contrary, to isolate, arbitrarily or not, a part of the chain for closer inspection. Association often leads to profusion and to embarrassment of riches. The same observations apply to other forms of chaining, flowing and networking.

b. Incorporation without integration (that is, without elimination of redundancies) leads to the formation of hybrid theories. These cannot survive long. Incorporation is motivated by conflict between entities, postulates or theory elements. It is through incorporation that the protectors of the "old truth" hope to prevail. It is an interim stage between old and new. The conflict blows up in the perpetrators' face and a new theory is invented. Incorporation is the sworn enemy of parsimony because it is politically motivated. It keeps everyone happy by not giving up anything and accumulating entities. This entity hoarding is poisonous and undoes the whole hyper-structure.

c. Contingency – see (r) above.

d. Strict monism or pluralism – see (o) above.

e. Comprehensiveness prevents parsimony. To obtain a description of the world, which complies with a law of parsimony, one has to ignore and neglect many elements, facts and observations. Godel demonstrated the paradoxality inherent in a comprehensive formal logical system. To fully describe the world, however, one would need an infinite amount of assumptions, axioms, theoretical entities, elements, functions and variables. This is anathema to parsimony.

f. The previous excludes the reconcilement of parsimony and monovalent correspondence. An isomorphic mapping of the world to the worldview, a realistic rendering of the universe using theoretical entities and other language elements would hardly be expected to be parsimonious. Sticking to facts (without the employ of theory elements) would generate a pluralistic multiplication of entities. Realism is like using a machine language to run a supercomputer. The path of convergence (with the world) – convergence (with predictions yielded by the theory) leads to a proliferation of categories, each one populated by sparse specimen. Species and genera abound. The worldview is marred by too many details, crowded by too many apparently unrelated observations.

g. Finally, if the field of research is wrongly – too narrowly – defined, this could be detrimental to the positing of meaningful questions and to the expectation of receiving meaningful replies to them (experimental outcomes). This lands us

where we started: the psychophysical problem is, perhaps, too narrowly defined. Dominated by Physics, questions are biased or excluded altogether. Perhaps a Fourth Substance IS the parsimonious answer, after all.

Partial vs. Whole

Religious people believe in the existence of a supreme being. It has many attributes but two of the most striking are that it seems to both encompass and to pervade everything. Judaic sources are in the habit of saying that we all have a "share of the upper divine soul". Put more formally, we can say that we are both part of a whole and yet permeated by it.

But what is the relationship between the parts and the whole?

It could be either formal (a word in a sentence, for instance) or physical (a neuron in our brain, for instance).

I. **Formal Systems**

In a formal relationship, the removal of one (or more) of the parts leads to a corresponding change in the truth value of a sentence / proposition / theorem / syllogism (the whole). This change is prescribed by the formalism itself. Thus, a part could be made to fit into a whole providing we know the formal relationships between them (and the truth values derived thereof).

Things are pretty much the same in the physical realm. The removal of a part renders the whole - NOT whole (in the functional sense, in the structural sense, or in both senses). The part is always smaller (in size, mass, weight) than the whole and it always possesses the potential to

contribute to the functioning / role of the whole. The part need not be active within the whole to qualify as a part - but it must possess the potential to be active.

In other words: the whole is defined by its parts - their sum, their synergy, their structure, their functions. Even where epiphenomena occur - it is inconceivable to deal with them without resorting to some discussion of the parts in their relationships with the whole.

The parts define the whole, but they are also defined by their context, by the whole. It is by observing their place in the larger structure, their interactions with other parts, and the general functioning of the whole that we realize that they are its "parts". There are no parts without a whole.

It, therefore, would seem that "parts" and "whole" are nothing but conventions of language, merely the way we choose to describe the world - a way compatible with our evolutionary and survival goals and with our sensory input. If this is so, then, being defined by each other, parts and whole are inefficient, cyclical, recursive, and, in short: tautological modes of relating to the world.

This problem is not merely confined to philosophical and linguistic theories. It plays an important part in the definition of physical systems.

II. **Physical Systems**

A physical system is an assemblage of parts. Yet, parts remain correlated (at least, this is the assumption in post-Einsteinean physics) only if they can maintain contact (=exchange information about their states) at a maximum speed equal to the speed of light. When such communication is impossible (or too slow for the

purposes of keeping a functioning system) - the correlation rests solely on retained "memories" (i.e., past data).

Memories, however, present two problems. First, they are subject to the second law of thermodynamics and deteriorate through entropy. Second, as time passes, the likelihood grows that the retained memories will no longer reflect the true state of the system.

It would, therefore, seem that a physical system is dependent upon proper and timely communication between its parts and cannot rely on "memory" to maintain its "system-hood" (coherence)

This demand, however, conflicts with some interpretations of the formalism of Quantum Mechanics which fail to uphold locality and causality. The fact that a whole is defined by its parts which, in turn, define the whole - contradicts our current worldview in physics.

III. **Biological Systems**

Can we say, in any rigorous sense, that the essence of a whole (=its wholeness, its holistic attributes and actions) can be learned from its parts? If we were to observe the parts long enough, using potent measurement instruments - would we then have been able to predict how the whole should look like, what will its traits and qualities be, and how it will react and function under changing circumstances?

Can we glean everything about an organism from a cell, for instance? If we were extraterrestrial aliens and were to come to possess a human cell - having never set eyes on a human before - would we have been able to reconstruct one? Probably yes, if we were also the outcomes of DNA-

based genetics. And what if we were not?

Granted: if we were to place the DNA in the right biochemical "context" and inject the right chemical and electric "stimuli" into the brew - a human, possibly, might have emerged. But is this tantamount to learning about the whole from its parts? Is elaborate reconstruction of the whole from its parts - the equivalent of learning about the whole by observing and measuring said parts? This is counter-intuitive.

DNA (the part) includes all the information needed to construct an organism (a whole). Yet, this feat is dependent on the existence of a carefully regulated environment, which includes the raw materials and catalysts from which the whole is to be constructed. In a (strong) sense, it is safe to say that the DNA includes the essence of the whole. But we cannot say that this information about the whole can be extracted (or decoded) merely by observing the DNA. More vigorous actions are necessary.

IV. **Holograms and Fractals**

This is not the case with a fractal. It is a mathematical construct - but it appears abundantly in nature. Each part of the fractal is a perfectly identical fractal, though on a smaller scale. Is DNA a fractal? It is not. The observable form of the fractal is totally preserved in every part of the fractal. Studying any part of the fractal - observing and measuring it - is actually studying the whole of it. No other actions are needed: just observation and measurement.

Still, the fractal is a mere structure, a form. Is this, its form, the essence of the whole? Moreover, given that the

fractal, on every level, is the exact and perfect copy of the whole - can we safely predict that each of its parts will function as the whole does, or that it will possess the same attributes as the whole?

In other words: are observations of the fractal's form sufficient to establish a functional identity between the whole and the part - or do we need to apply additional tests: physical and metaphysical? The answer seems obvious: form is not a determinant. We cannot base our learning (predictions) on form alone. We need additional data: how do the parts function, what are their other properties. Even then, we can never be sure that each part is identical to the whole without applying the very same battery of experiments to the latter.

Consider emergent phenomena (epiphenomena).

There is information in the whole (temperature and pressure in the case of gas molecules or wetness in the case of water) - which cannot be predicted or derived from a complete knowledge of the properties of the constituent parts (single gas molecules or the elements hydrogen and oxygen). Can thought be derived from the study of single neurons?

We can never be sure that the essence of the whole is, indeed, completely resident in the part.

Holograms and fractals are idiosyncratic cases: the shape of the whole is absolutely discernible in the tiniest part. Still shape is only one characteristic of the whole - and hardly the most important, pertinent, or interesting one.

DNA is another (and more convincing) case. Admittedly, in studying DNA, we have to resort to very complex procedures (which go beyond non-intrusive observation).

Still, the entire information about the whole (i.e., the organism) is clearly there. Yet, even in this case we cannot say that the whole is in the part. To say so would be to ignore the impact of the environment on the whole (i.e., the organism), of the whole's evolution and its history, and of the interactions between its components. The whole still remains unpredictable - no matter how intimate and detailed our knowledge of its DNA (i.e., its part) becomes.

It would seem that essence is indivisible. The essence of the whole is not be found in its parts, no matter what is the procedure employed (observation, measurement, or more intrusive methods). This, at least, is true in the physical world.

Abstractions may be a different matter altogether. A particle can be construed to constitute a part of a wave in Quantum Mechanics - yet, both are really the same thing, two facets of the same natural phenomenon. Consciousness arises in the brain and, therefore, by definition is a part of it. But if we adopt the materialistic approach, consciousness IS the brain. Moreover, consciousness is really we - and the brain is merely one of our parts! Thus, consciousness would appear to be a part of the brain and to include it at the same time!

Dualism (wave-particle, brain-mind) is a response to the confusing relationships between members of whole-part pairs in which one of the members of the pair is concrete and the other abstract.

V. **God as a Watchmaker**

Perhaps the most intriguing approach to part versus hole issues is "God as a watchmaker".

God (the whole) is compared to an artist and the world of

phenomena - a part of Him - to His art. The art (the part) is supposed to reflect the "nature" of the artist (the whole). A painting tells us a lot about the painter. We know that the painter can see (i.e., reacts to certain electromagnetic frequencies), or that he uses extensions of his body to apply colour to cloth. It is also assumed that a work of art can accurately inform us about the psychology of the artist: his internal world. This is because art emanates from this world, it is part of it, it is influenced by it, and, in turn, it influences it.

The weaknesses of this approach are immediately evident:

1. A work of art has a life of its own. The artist no longer has a monopoly on the interpretation of his work and his "original intentions" have no privileged status. In other words, we never look at an art work "objectively", "without prejudice" (see Bakhtin's work on the discourse in the novel). A work of art tells us a lot both about the artist and about ourselves as well.

2. There is no way to prove or refute any assertion related to the private language of the artist. How can we know for sure that the artist's psyche is indeed expressed in his art?

3. His art influences the artist (presumably his psyche). How can these influences be gauged and monitored? A work of art is often static (snapshot), not dynamic. It tells us nothing about the changing mental state of the artist (which is of real interest to us).

4. An art work can be substantially and essentially misleading (when it comes to teaching us about

the artist). The artist can choose to make it so. Moreover, very important "features" of a work of art can be different from those of the artist. God, to take one notable artist, is described as omnipotent, omnipresent, eternal - yet none of these attributes is manifest in his work of art: the world and its denizens. We, who are His creations (i.e., His works of art), are finite and very far from being either omnipotent or omniscient. In the case of God, His work of art does not have the same properties as the artist and can teach us nothing about Him.

VI. **On the Whole...**

Part and whole are PHYSICAL conventions, the results of physical observations. We have demonstrated that whenever an abstract concept is involved (particle, wave, mind), duality results. Part-whole is a duality, akin to the wave-particle duality.

This is also the case with art forms. The relationship between an artist and his work is much more complex than between part and whole. It cannot be reduced to it: a work of art is NOT a part of the artist (the whole). Rather, their interrelatedness is more akin to the one between background and Image. The decision which is which is totally arbitrary and culture-dependent.

Consider a frame carpenter. When confronted with the Mona Lisa - what, for him, would constitute the image and what - the background? Naturally, he is likely to pay much more attention to the exquisite wooden frame than to the glorious painting. The wooden frame would be his image, the mysterious lady - the background. This is largely true in art: artist and art get so entangled that the

distinction between them is, to a large degree, arbitrary and culture-dependent. The work of art teaches us nothing about the artist that is of enduring value - but it is, irrefutably, part of him and serves to define him (the same way that background and image define each other).

So, there are two ways of being "a part of the whole". The classical, deterministic way (the part is smaller than the whole and included in it) - and through a tautological relationship (the part defines the whole and vice versa). We started our article with this tautology and we end with it. "Part", "Whole", do seem to be language conventions, tautological, dualistic, not very practical, or enlightening, except on the most basic, functional level. The oft-resulting duality is usually a sign of the breakdown of an inadequate conceptual system of thought.

It is also probably a sign that "part" and "whole" do not carry any real information about the world. They are, however, practical (though not empirical) categories (on the basic functional level) and help us in the delicate act of surviving.

Philosophy

Philosophy is the attempt to enhance the traits we deem desirable and suppress the traits we deem unwanted (a matter of judgment) by getting better acquainted with the world around us (a matter of reality). An improvement in the world around us inevitably follows.

To qualify as a philosophical theory, the practitioner of philosophy - the philosopher - must, therefore meet a few tests:

1. To clearly define and enumerate the traits he seeks to

enhance (or suppress) and to lucidly and unambiguously describe his ideal of the world

2. Not to fail the tests of every scientific theory (internal and external consistency, falsifiability, possessed of explanatory and predictive powers, etc.)

These are mutually exclusive demands. Reality - even merely the intersubjective sort - does not yield to value judgments. Ideals, by definition, are unreal. Consequently, philosophy uneasily treads the ever-thinning lines separating it, on the one hand, from physics and, on the other hand, from religion.

The history of philosophy is the tale of attempts - mostly botched - to square this obstinate circle. In their desperate struggle to find meaning, philosophers resorted to increasingly arcane vocabularies and obscure systems of thought. It did nothing to endear it to the man (and reader) in the post-Socratic agora.

Play

If a lone, unkempt, person, standing on a soapbox were to say that he should become the Prime Minister, he would have been diagnosed by a passing psychiatrist as suffering from this or that mental disturbance. But were the same psychiatrist to frequent the same spot and see a crowd of millions saluting the same lonely, shabby figure - what would have his diagnosis been? Surely, different (perhaps of a more political hue).

It seems that one thing setting social games apart from madness is quantitative: the amount of the participants involved. Madness is a one-person game, and even mass mental disturbances are limited in scope. Moreover, it has

long been demonstrated (for instance, by Karen Horney) that the definition of certain mental disorders is highly dependent upon the context of the prevailing culture. Mental disturbances (including psychoses) are time-dependent and locus-dependent. Religious behaviour and romantic behaviour could be easily construed as psychopathologies when examined out of their social, cultural, historical and political contexts.

Historical figures as diverse as Nietzsche (philosophy), Van Gogh (art), Hitler (politics) and Herzl (political visionary) made this smooth phase transition from the lunatic fringes to centre stage. They succeeded to attract, convince and influence a critical human mass, which provided for this transition. They appeared on history's stage (or were placed there posthumously) at the right time and in the right place. The biblical prophets and Jesus are similar examples though of a more severe disorder. Hitler and Herzl possibly suffered from personality disorders - the biblical prophets were, almost certainly, psychotic.

We play games because they are reversible and their outcomes are reversible. No game-player expects his involvement, or his particular moves to make a lasting impression on history, fellow humans, a territory, or a business entity. This, indeed, is the major taxonomic difference: the same class of actions can be classified as "game" when it does not intend to exert a lasting (that is, irreversible) influence on the environment. When such intention is evident - the very same actions qualify as something completely different. Games, therefore, are only mildly associated with memory. They are intended to be forgotten, eroded by time and entropy, by quantum events in our brains and macro-events in physical reality.

Games - as opposed to absolutely all other human activities - are entropic. Negentropy - the act of reducing entropy and increasing order - is present in a game, only to be reversed later. Nowhere is this more evident than in video games: destructive acts constitute the very foundation of these contraptions. When children start to play (and adults, for that matter - see Eric Berne's books on the subject) they commence by dissolution, by being destructively analytic. Playing games is an analytic activity. It is through games that we recognize our temporariness, the looming shadow of death, our forthcoming dissolution, evaporation, annihilation.

These FACTS we repress in normal life - lest they overwhelm us. A frontal recognition of them would render us speechless, motionless, paralysed. We pretend that we are going to live forever, we use this ridiculous, counter-factual assumption as a working hypothesis. Playing games lets us confront all this by engaging in activities which, by their very definition, are temporary, have no past and no future, temporally detached and physically detached. This is as close to death as we get.

Small wonder that rituals (a variant of games) typify religious activities. Religion is among the few human disciplines which tackle death head on, sometimes as a centrepiece (consider the symbolic sacrifice of Jesus). Rituals are also the hallmark of obsessive-compulsive disorders, which are the reaction to the repression of forbidden emotions (our reaction to the prevalence, pervasiveness and inevitability of death is almost identical). It is when we move from a conscious acknowledgement of the relative lack of lasting importance of games - to the pretension that they are important, that we make the transition from the personal

to the social.

The way from madness to social rituals traverses games. In this sense, the transition is from game to myth. A mythology is a closed system of thought, which defines the "permissible" questions, those that can be asked. Other questions are forbidden because they cannot be answered without resorting to another mythology altogether.

Observation is an act, which is the anathema of the myth. The observer is presumed to be outside the observed system (a presumption which, in itself, is part of the myth of Science, at least until the Copenhagen Interpretation of Quantum Mechanics was developed).

A game looks very strange, unnecessary and ridiculous from the vantage-point of an outside observer. It has no justification, no future, it looks aimless (from the utilitarian point of view), it can be compared to alternative systems of thought and of social organization (the biggest threat to any mythology). When games are transformed to myths, the first act perpetrated by the group of transformers is to ban all observations by the (willing or unwilling) participants.

Introspection replaces observation and becomes a mechanism of social coercion. The game, in its new guise, becomes a transcendental, postulated, axiomatic and doctrinaire entity. It spins off a caste of interpreters and mediators. It distinguishes participants (formerly, players) from outsiders or aliens (formerly observers or uninterested parties). And the game loses its power to confront us with death. As a myth it assumes the function of repression of this fact and of the fact that we are all prisoners. Earth is really a death ward, a cosmic death row: we are all trapped here and all of us are sentenced to

die.

Today's telecommunications, transportation, international computer networks and the unification of the cultural offering only serve to exacerbate and accentuate this claustrophobia. Granted, in a few millennia, with space travel and space habitation, the walls of our cells will have practically vanished (or become negligible) with the exception of the constraint of our (limited) longevity. Mortality is a blessing in disguise because it motivates humans to act in order "not to miss the train of life" and it maintains the sense of wonder and the (false) sense of unlimited possibilities.

This conversion from madness to game to myth is subjected to meta-laws that are the guidelines of a super-game. All our games are derivatives of this super-game of survival. It is a game because its outcomes are not guaranteed, they are temporary and to a large extent not even known (many of our activities are directed at deciphering it). It is a myth because it effectively ignores temporal and spatial limitations. It is one-track minded: to foster an increase in the population as a hedge against contingencies, which are outside the myth.

All the laws, which encourage optimization of resources, accommodation, an increase of order and negentropic results - belong, by definition to this meta-system. We can rigorously claim that there exist no laws, no human activities outside it. It is inconceivable that it should contain its own negation (Godel-like), therefore it must be internally and externally consistent. It is as inconceivable that it will be less than perfect - so it must be all-inclusive. Its comprehensiveness is not the formal logical one: it is not the system of all the conceivable sub-systems, theorems and propositions (because it is not self-

contradictory or self-defeating). It is simply the list of possibilities and actualities open to humans, taking their limitations into consideration. This, precisely, is the power of money. It is - and always has been - a symbol whose abstract dimension far outweighed its tangible one.

This bestowed upon money a preferred status: that of a measuring rod. The outcomes of games and myths alike needed to be monitored and measured. Competition was only a mechanism to secure the on-going participation of individuals in the game. Measurement was an altogether more important element: the very efficiency of the survival strategy was in question. How could humanity measure the relative performance (and contribution) of its members - and their overall efficiency (and prospects)? Money came handy. It is uniform, objective, reacts flexibly and immediately to changing circumstances, abstract, easily transformable into tangibles - in short, a perfect barometer of the chances of survival at any given gauging moment. It is through its role as a universal comparative scale - that it came to acquire the might that it possesses.

Money, in other words, had the ultimate information content: the information concerning survival, the information needed for survival. Money measures performance (which allows for survival enhancing feedback). Money confers identity - an effective way to differentiate oneself in a world glutted with information, alienating and assimilating. Money cemented a social system of monovalent rating (a pecking order) - which, in turn, optimized decision making processes through the minimization of the amounts of information needed to affect them. The price of a share traded in the stock exchange, for instance, is assumed (by certain

theoreticians) to incorporate (and reflect) all the information available regarding this share. Analogously, we can say that the amount of money that a person has contains sufficient information regarding his or her ability to survive and his or her contribution to the survivability of others. There must be other - possibly more important measures of that - but they are, most probably, lacking: not as uniform as money, not as universal, not as potent, etc.

Money is said to buy us love (or to stand for it, psychologically) - and love is the prerequisite to survival. Very few of us would have survived without some kind of love or attention lavished on us. We are dependent creatures throughout our lives. Thus, in an unavoidable path, as humans move from game to myth and from myth to a derivative social organization - they move ever closer to money and to the information that it contains. Money contains information in different modalities. But it all boils down to the very ancient question of the survival of the fittest.

Polar Concepts

The British philosopher Ryle attacked the sceptical point of view regarding right and wrong (=being in error). He said that if the concept of error is made use of – surely, there must be times that we are right. To him, it was impossible to conceive of the one without the other. He regarded "right" and "wrong" as polar concepts. One could not be understood without understanding the other. As it were, Ryle barked up the wrong sceptic tree. All the sceptics said was that one cannot know (or prove) that one is in the right or when one is in the right. They, largely, did not dispute the very existence of right and erroneous decisions, acts and facts.

But this disputation ignored a more basic question. Can we really not understand or know the right – without as intimately understanding and knowing the wrong? To know a good object – must we contrast it with an evil one? Is the action of contrasting essential to our understanding – and, if it is, how?

Imagine a mutant newborn. While in possession of a mastery of all lingual faculties – the infant will have no experience whatsoever and will have received no ethical or moral guidelines from his adult environment. If such a newborn were to be offered food, a smile, a caressing hand, attention – would he not have identified them as "good", even if these constituted his whole universe of experience? Moreover, if he were to witness war, death, violence and abuse – would he have not recoiled and judged them to be "bad"?

Many would hurl at me the biblical adage about the intrinsic evilness of humans. But this is beside the point. Whether this infant's world of values and value judgement will conform to society's is an irrelevant question to us. We ask: would such an infant consistently think of certain acts and objects as "good" (desired, beneficial) – even if he were never to come across another set of acts and objects which he could contrast with the first and call "bad" or "evil". I think so. Imagine that the infant is confined to the basic functions: eating and playing. Is there any possibility that he would judge them to be "bad"? Never. Not even if he were never to do anything else but eat and play. Good things are intrinsically good and can be immediately identified as such, even without the possibility to contrast them with bad things. "Goodness" and "evil" or "wrong-ness" are extensive parameters. They characterize the whole object or act.

They are indispensable to the definition of an object the same way that its spatial dimensions are. They are a part of the character of an act the same way that the actions comprising it are.

Moreover, the positively good can be contrasted with a "non-good" neutral background. The colour white can be discerned against a neutral background as well as against a black one. A good action can be compared to a morally or ethically neutral one (to clapping monotonously, for instance) and still retain its "goodness". There can exist genuine articles where no counterfeit ones are to be found. Copies of the same software application are both genuine and counterfeit, in the fullest sense of these two words. The first such item (diskette of software application) to have been produced, chronologically, cannot be defined as "The Original". This is more so if all the copies are manufactured at the same instant. Replicated works of art (graphics or caricatures) are originals and copies simultaneously. We can conceive of a straight line without knowing about crooked or curved ones. The path of light-rays in vacuum in a part of the universe devoid of any masses constitutes a straight line. Yet, it cannot be contrasted to a crooked or to a curved line anywhere in its proximity.

There is a group of concepts, however, which are truly polar. One cannot be defined without the other. Moreover, one GENERATES the other. Take "Up" and "Down". As one moves up, what one leaves behind MUST be down. "Down" is generated by the "Up" movement. It is really a temporal definition: "Down" is the past tense of "Up". Movement must be involved in the process of discerning this couplet. Even if we do not move physically, our eyes are bound to. Thus one truly cannot conceive of an up

without a down. But no understanding is involved here. No issue of essence is resolved through this distinction. The deep meanings of up and down are not deciphered by the simple act of contrasting them. Rather, down is another, earlier, phase of up. It is a tautology. What is down? – that which is not up or sideways. But, what is up? – that which is not down or sideways and so on. Polar concepts are tautologies with a deceiving appearance. We feel, wrongly, that they add to our knowledge and comprehension, that there is a profound difference between left and right or past and present or one and many. In nature, such differences can have profound manifestations and implications. A right-handed molecule could function very differently compared to its left-handed sibling. One soldier cannot win a war – many, usually, are better at doing it. But one should not confuse the expression with that which is expressed.

It seems that we can generalize:

Concepts pertaining to the PHYSICAL world do seem to come in pairs and are polar in the restricted sense that in each given couple:

a. One cannot come without the other and

b. One generates the other and thus

c. One defines the other.

Polar concepts, are, therefore, tautologies in the strictest logical sense.

The physical world incorporates Conceptual Polarity – a logical, Aristotelian duality of "yes" and "no", "here" and "not here". Modern science, however, tends to refute this world view and replace it with another, a polyvalent one.

In the logical, moral and aesthetic realms there is no conceptual polarity.

Concepts in these realms can come in pairs – but do not have to do so. Their understanding is not affected if they are not coupled with their supposed counterparts.

The logical, moral and aesthetic realms tolerate Conceptual Monopoles.

These realms also contain False Conceptual Polarities. This is when one concept is contrasted with another concept within the apparent framework of a conceptual polarity. But, upon closer inspection, the polarity unravels because one of the conceptual poles cannot be understood, fully described, enumerated or otherwise grasped. Examples include: definite-indefinite (how does one define the indefinite?), applicable-inapplicable, mortal-immortal, perfect-imperfect, finite-infinite and temporal-eternal, to name but a few. One of the concepts is an indefinite, useless and inapplicable negation of the other.

The existence of False Conceptual Polarities proves that, in many cases, polar concepts are NOT essential to the process of understanding concepts and assimilating them in the language and in the meta-language. We all know what is indefinite, imperfect, even eternal. We do not need – nor are we aided by the introduction of – their polar complements. On the contrary, such an introduction is bound to lead to logical paradoxes.

There are serious reasons to believe that the origin of most paradoxes is in polar concepts. As such, they are not only empty (useless) – but positively harmful. This is mostly because tend to regard every pair of polar concepts as both mutually exclusive and mutually exhaustive. In other

words, people believe that polar pairs form "complete universes". Thus, in Kant's famous antinomies, the world is either A or not-A, which leads to logical conflicts. Moreover, polar concepts do not incorporate any kind of hierarchy (of types, categories, or orders). Thus, first type, first order concepts can be paired (wrongly) with higher type, lesser order concepts. This, inevitably leads to paradoxes (as Russell demonstrated amply).

Population

The latest census in Ukraine revealed an apocalyptic drop of 10% in its population - from 52.5 million a decade ago to a mere 47.5 million last year. Demographers predict a precipitous decline of one third in Russia's impoverished, inebriated, disillusioned, and ageing citizenry. Births in many countries in the rich, industrialized, West are below the replacement rate. These bastions of conspicuous affluence are shriveling.

Scholars and decision-makers - once terrified by the Malthusian dystopia of a "population bomb" - are more sanguine now. Advances in agricultural technology eradicated hunger even in teeming places like India and China. And then there is the old idea of progress: birth rates tend to decline with higher education levels and growing incomes. Family planning has had resounding successes in places as diverse as Thailand, China, and western Africa.

In the near past, fecundity used to compensate for infant mortality. As the latter declined - so did the former. Children are means of production in many destitute countries. Hence the inordinately large families of the past - a form of insurance against the economic outcomes of the inevitable demise of some of one's off-spring.

Yet, despite these trends, the world's populace is augmented by 80 million people annually. All of them are born to the younger inhabitants of the more penurious corners of the Earth. There were only 1 billion people alive in 1804. The number doubled a century later.

But our last billion - the sixth - required only 12 fertile years. The entire population of Germany is added every half a decade to both India and China. Clearly, Mankind's growth is out of control, as affirmed in the 1994 Cairo International Conference on Population and Development.

Dozens of millions of people regularly starve - many of them to death. In only one corner of the Earth - southern Africa - food aid is the sole subsistence of entire countries. More than 18 million people in Zambia, Malawi, and Angola survived on charitable donations in 1992. More than 10 million expect the same this year, among them the emaciated denizens of erstwhile food exporter, Zimbabwe.

According to Medecins Sans Frontiere, AIDS kills 3 million people a year, Tuberculosis another 2 million. Malaria decimates 2 people every minute. More than 14 million people fall prey to parasitic and infectious diseases every year - 90% of them in the developing countries.

Millions emigrate every year in search of a better life. These massive shifts are facilitated by modern modes of transportation. But, despite these tectonic relocations - and despite famine, disease, and war, the classic Malthusian regulatory mechanisms - the depletion of natural resources - from arable land to water - is undeniable and gargantuan.

Our pressing environmental issues - global warming,

water stress, salinization, desertification, deforestation, pollution, loss of biological diversity - and our ominous social ills - crime at the forefront - are traceable to one, politically incorrect, truth:

There are too many of us. We are way too numerous. The population load is unsustainable. We, the survivors, would be better off if others were to perish. Should population growth continue unabated - we are all doomed.

Doomed to what?

Numerous Cassandras and countless Jeremiads have been falsified by history. With proper governance, scientific research, education, affordable medicines, effective family planning, and economic growth - this planet can support even 10-12 billion people. We are not at risk of physical extinction and never have been.

What is hazarded is not our life - but our quality of life. As any insurance actuary will attest, we are governed by statistical datasets.

Consider this single fact:

About 1% of the population suffer from the perniciously debilitating and all-pervasive mental health disorder, schizophrenia. At the beginning of the 20th century, there were 16.5 million schizophrenics - nowadays there are 64 million. Their impact on friends, family, and colleagues is exponential - and incalculable. This is not a merely quantitative leap. It is a qualitative phase transition.

Or this:

Large populations lead to the emergence of high density urban centers. It is inefficient to cultivate ever smaller

plots of land. Surplus manpower moves to centers of industrial production. A second wave of internal migrants caters to their needs, thus spawning a service sector. Network effects generate excess capital and a virtuous cycle of investment, employment, and consumption ensues.

But over-crowding breeds violence (as has been demonstrated in experiments with mice). The sheer numbers involved serve to magnify and amplify social anomies, deviate behaviour, and antisocial traits. In the city, there are more criminals, more perverts, more victims, more immigrants, and more racists per square mile.

Moreover, only a planned and orderly urbanization is desirable. The blights that pass for cities in most third world countries are the outgrowth of neither premeditation nor method. These mega-cities are infested with non-disposed of waste and prone to natural catastrophes and epidemics.

No one can vouchsafe for a "critical mass" of humans, a threshold beyond which the species will implode and vanish.

Luckily, the ebb and flow of human numbers is subject to three regulatory demographic mechanisms, the combined action of which gives hope.

The Malthusian Mechanism

Limited resources lead to wars, famine, and diseases and, thus, to a decrease in human numbers. Mankind has done well to check famine, fend off disease, and staunch war. But to have done so without a commensurate policy of population control was irresponsible.

The Assimilative Mechanism

Mankind is not divorced from nature. Humanity is destined to be impacted by its choices and by the reverberations of its actions. Damage caused to the environment haunts - in a complex feedback loop - the perpetrators.

Examples:

Immoderate use of antibiotics leads to the eruption of drug-resistant strains of pathogens. A myriad types of cancer are caused by human pollution. Man is the victim of its own destructive excesses.

The Cognitive Mechanism

Humans intentionally limit the propagation of their race through family planning, abortion, and contraceptives. Genetic engineering will likely intermesh with these to produce "enhanced" or "designed" progeny to specifications.

We must stop procreating. Or, else, pray for a reduction in our numbers.

This could be achieved benignly, for instance by colonizing space, or the ocean depths - both remote and technologically unfeasible possibilities.

Yet, the alternative is cataclysmic. Unintended wars, rampant disease, and lethal famines will ultimately trim our numbers - no matter how noble our intentions and how diligent our efforts to curb them.

Is this a bad thing?

Not necessarily. To my mind, even a Malthusian

resolution is preferable to the alternative of slow decay, uniform impecuniosity, and perdition in instalments - an alternative made inexorable by our collective irresponsibility and denial.

Private and Public

As Aristotle and John Stuart Mill observed, the private sphere sets limits, both normative and empirical, to the rights, powers, and obligations of others. The myriad forms of undue invasion of the private sphere - such as rape, burglary, or eavesdropping - are all crimes. Even the state - this monopolist of legal violence - respects these boundaries. When it fails to honor the distinction between public and private - when it is authoritarian or totalitarian - it loses its legitimacy.

Alas, this vital separation of realms is eroding fast.

In theory, private life is insulated and shielded from social pressures, the ambit of norms and laws, and even the strictures of public morality. Reality, though, is different. The encroachment of the public is inexorable and, probably, irreversible. The individual is forced to share, consent to, or merely obey a panoply of laws, norms, and regulations not only in his or her relationships with others - but also when solitary.

Failure to comply - and to be seen to be conforming - leads to dire consequences. In a morbid twist, public morality is now synonymous with social orthodoxy, political authority, and the exercise of police powers. The quiddity, remit, and attendant rights of the private sphere are now determined publicly, by the state.

In the modern world , privacy - the freedom to withhold

or divulge information - and autonomy - the liberty to act in certain ways when not in public - are illusory in that their scope and essence are ever-shifting, reversible, and culture-dependent. They both are perceived as public concessions - not as the inalienable (though, perhaps, as Judith Jarvis Thomson observes, derivative) rights that they are.

The trend from non-intrusiveness to wholesale invasiveness is clear:

Only two hundred years ago, the legal regulation of economic relations between consenting adults - a quintessentially private matter - would have been unthinkable and bitterly resisted. Only a century ago, no bureaucrat would have dared intervene in domestic affairs. A Man's home was, indeed, his castle.

Nowadays, the right - let alone dwindling technological ability - to maintain a private sphere is multiply contested and challenged. Feminists, such as Catharine MacKinnon, regard it as a patriarchal stratagem to perpetuate abusive male domination. Conservatives blame it for mounting crime and terrorism. Sociologists - and the Church - worry about social atomization and alienation.

Consequently, today, both one's business and one's family are open books to the authorities, the media, community groups, non-governmental organizations, and assorted busybodies.

Which leads us back to privacy, the topic of this essay. It is often confused with autonomy. The private sphere comprises both. Yet, the former has little to do with the latter . Even the acute minds of the Supreme Court of the United States keep getting it wrong.

In 1890, Justice Louise Brandeis (writing with Samuel Warren) correctly summed up privacy rights as "the right to be left alone" - that is, the right to control information about oneself.

But, nearly a century later, in 1973, in the celebrated case of Roe vs. Wade, the U.S. Supreme Court, mixing up privacy and autonomy, found some state regulation of abortion to be in violation of a woman's constitutional right of privacy, implicit in the liberty guarantee of the Due Process Clause of the Fourteenth Amendment.

But if unrelated to autonomy - what is privacy all about?

As Julie Inness and many others note, privacy - the exclusive access to information - is tightly linked to intimacy. The more intimate the act - excretion, ill-health, and sex come to mind - the more closely we safeguard its secrets. By keeping back such data, we show consideration for the sensitivities of other people and we enhance our own uniqueness and the special nature of our close relationships.

Privacy is also inextricably linked to personal safety. Withholding information makes us less vulnerable to abuse and exploitation. Our privileged access to some data guarantees our wellbeing, longevity, status, future, and the welfare of our family and community. Just consider the consequences of giving potentially unscrupulous others access to our bank accounts, credit card numbers, PIN codes, medical records, industrial and military secrets, or investment portfolios.

Last, but by no way least, the successful defense of one's privacy sustains one's self-esteem - or what Brandeis and Warren called "inviolate personality". The invasion of

privacy provokes an upwelling of shame and indignation and feelings of indignity, violation, helplessness, a diminished sense of self-worth, and the triggering of a host of primitive defense mechanisms. Intrusion upon one's private sphere is, as Edward J. Bloustein observes, traumatic.

Incredibly, modern technology has conspired to do just that. Reality TV shows, caller ID, electronic monitoring, computer viruses (especially worms and Trojans), elaborate databases, marketing profiles, Global Positioning System (GPS)-enabled cell phones, wireless networks, smart cards - are all intrusive and counter-privacy.

Add social policies and trends to the mixture - police profiling, mandatory drug-testing, workplace keylogging, the nanny (welfare) state, traffic surveillance, biometric screening, electronic bracelets - and the long-heralded demise of privacy is no longer mere scaremongering.

As privacy fades - so do intimacy, personal safety, and self-esteem (mental health) and with them social cohesion. The ills of anomic modernity - alienation, violence, and crime, to mention but three - are, therefore, directly attributable to diminishing privacy. This is the irony: that privacy is increasingly breached in the name of added security (counter-terrorism or crime busting). We seem to be undermining our societies in order to make them safer.

Psychoanalysis

Introduction

No social theory has been more influential and, later,

more reviled than psychoanalysis. It burst upon the scene of modern thought, a fresh breath of revolutionary and daring imagination, a Herculean feat of model-construction, and a challenge to established morals and manners. It is now widely considered nothing better than a confabulation, a baseless narrative, a snapshot of Freud's tormented psyche and thwarted 19th century Mitteleuropa middle class prejudices.

Most of the criticism is hurled by mental health professionals and practitioners with large axes to grind. Few, if any, theories in psychology are supported by modern brain research. All therapies and treatment modalities - including medicating one's patients - are still forms of art and magic rather than scientific practices. The very existence of mental illness is in doubt - let alone what constitutes "healing". Psychoanalysis is in bad company all around.

Some criticism is offered by practicing scientists - mainly experimentalists - in the life and exact (physical) sciences. Such diatribes frequently offer a sad glimpse into the critics' own ignorance. They have little idea what makes a theory scientific and they confuse materialism with reductionism or instrumentalism and correlation with causation.

Few physicists, neuroscientists, biologists, and chemists seem to have plowed through the rich literature on the psychophysical problem. As a result of this obliviousness, they tend to proffer primitive arguments long rendered obsolete by centuries of philosophical debates.

Science frequently deals matter-of-factly with theoretical entities and concepts - quarks and black holes spring to mind - that have never been observed, measured, or

quantified. These should not be confused with concrete entities. They have different roles in the theory. Yet, when they mock Freud's trilateral model of the psyche (the id, ego, and superego), his critics do just that - they relate to his theoretical constructs as though they were real, measurable, "things".

The medicalization of mental health hasn't helped either.

Certain mental health afflictions are either correlated with a statistically abnormal biochemical activity in the brain – or are ameliorated with medication. Yet the two ***facts*** are not ineludibly facets of ***the same*** underlying phenomenon. In other words, that a given medicine reduces or abolishes certain symptoms does not necessarily mean they were ***caused*** by the processes or substances affected by the drug administered. Causation is only one of many possible connections and chains of events.

To designate a pattern of behavior as a mental health disorder is a value judgment, or at best a statistical observation. Such designation is effected regardless of the facts of brain science. Moreover, correlation is not causation. Deviant brain or body biochemistry (once called "polluted animal spirits") do exist – but are they truly the roots of mental perversion? Nor is it clear which triggers what: do the aberrant neurochemistry or biochemistry cause mental illness – or the other way around?

That psychoactive medication alters behavior and mood is indisputable. So do illicit and legal drugs, certain foods, and all interpersonal interactions. That the changes brought about by prescription are desirable – is debatable and involves tautological thinking. If a certain pattern of behavior is described as (socially) "dysfunctional" or

(psychologically) "sick" – clearly, every change would be welcomed as "healing" and every agent of transformation would be called a "cure".

The same applies to the alleged heredity of mental illness. Single genes or gene complexes are frequently "associated" with mental health diagnoses, personality traits, or behavior patterns. But too little is known to establish irrefutable sequences of causes-and-effects. Even less is proven about the interaction of nature and nurture, genotype and phenotype, the plasticity of the brain and the psychological impact of trauma, abuse, upbringing, role models, peers, and other environmental elements.

Nor is the distinction between psychotropic substances and talk therapy that clear-cut. Words and the interaction with the therapist also affect the brain, its processes and chemistry - albeit more slowly and, perhaps, more profoundly and irreversibly. Medicines – as David Kaiser reminds us in ***"Against Biologic Psychiatry"*** (Psychiatric Times, Volume XIII, Issue 12, December 1996) – treat symptoms, not the underlying processes that yield them.

So, what is mental illness, the subject matter of Psychoanalysis?

Someone is considered mentally "ill" if:

1. His conduct rigidly and consistently deviates from the typical, average behavior of all other people in his culture and society that fit his profile (whether this conventional behavior is moral or rational is immaterial), or

2. His judgment and grasp of objective, physical reality is impaired, and

3. His conduct is not a matter of choice but is innate and irresistible, and

4. His behavior causes him or others discomfort, and is

5. Dysfunctional, self-defeating, and self-destructive even by his own yardsticks.

Descriptive criteria aside, what is the ***essence*** of mental disorders? Are they merely physiological disorders of the brain, or, more precisely of its chemistry? If so, can they be cured by restoring the balance of substances and secretions in that mysterious organ? And, once equilibrium is reinstated – is the illness "gone" or is it still lurking there, "under wraps", waiting to erupt? Are psychiatric problems inherited, rooted in faulty genes (though amplified by environmental factors) – or brought on by abusive or wrong nurturance?

These questions are the domain of the "medical" school of mental health.

Others cling to the spiritual view of the human psyche. They believe that mental ailments amount to the metaphysical discomposure of an unknown medium – the soul. Theirs is a holistic approach, taking in the patient in his or her entirety, as well as his milieu.

The members of the functional school regard mental health disorders as perturbations in the proper, statistically "normal", behaviors and manifestations of "healthy" individuals, or as dysfunctions. The "sick" individual – ill at ease with himself (ego-dystonic) or making others unhappy (deviant) – is "mended" when rendered functional again by the prevailing standards of his social and cultural frame of reference.

In a way, the three schools are akin to the trio of blind men who render disparate descriptions of the very same elephant. Still, they share not only their subject matter – but, to a counter intuitively large degree, a faulty methodology.

As the renowned anti-psychiatrist, Thomas Szasz, of the State University of New York, notes in his article ***"The Lying Truths of Psychiatry"***, mental health scholars, regardless of academic predilection, infer the etiology of mental disorders from the success or failure of treatment modalities.

This form of "reverse engineering" of scientific models is not unknown in other fields of science, nor is it unacceptable if the experiments meet the criteria of the scientific method. The theory must be all-inclusive (anamnetic), consistent, falsifiable, logically compatible, monovalent, and parsimonious. Psychological "theories" – even the "medical" ones (the role of serotonin and dopamine in mood disorders, for instance) – are usually none of these things.

The outcome is a bewildering array of ever-shifting mental health "diagnoses" expressly centred around Western civilization and its standards (example: the ethical objection to suicide). Neurosis, a historically fundamental "condition" vanished after 1980. Homosexuality, according to the American Psychiatric Association, was a pathology prior to 1973. Seven years later, narcissism was declared a "personality disorder", almost seven decades after it was first described by Freud.

"The more I became interested in psychoanalysis, the more I saw it as a road to the same kind of broad and deep understanding of human nature that writers

possess."

Anna Freud

Towards the end of the 19th century, the new discipline of psychology became entrenched in both Europe and America. The study of the human mind, hitherto a preserve of philosophers and theologians, became a legitimate subject of scientific (some would say, pseudo-scientific) scrutiny.

The Structuralists - Wilhelm Wundt and Edward Bradford Titchener - embarked on a fashionable search for the "atoms" of consciousness: physical sensations, affections or feelings, and images (in both memories and dreams). Functionalists, headed by William James and, later, James Angell and John Dewey - derided the idea of a "pure", elemental sensation. They introduced the concept of mental association. Experience uses associations to alter the nervous system, they hypothesized.

Freud revolutionized the field (though, at first, his reputation was limited to the German-speaking parts of the dying Habsburg Empire). He dispensed with the unitary nature of the psyche and proposed instead a trichotomy, a tripartite or trilateral model (the id, ego, and superego). He suggested that our natural state is conflict, that anxiety and tension are more prevalent than harmony. Equilibrium (compromise formation) is achieved by constantly investing mental energy. Hence "psychodynamics".

Most of our existence is unconscious, Freud theorized. The conscious is but the tip of an ever-increasing iceberg. He introduced the concepts of libido and Thanatos (the life and death forces), instincts (Triebe, or "drives", in

German) or drives, the somatic-erotogenic phases of psychic (personality) development, trauma and fixation, manifest and latent content (in dreams). Even his intellectual adversaries used this vocabulary, often infused with new meanings.

The psychotherapy he invented, based on his insights, was less formidable. Many of its tenets and procedures have been discarded early on, even by its own proponents and practitioners. The rule of abstinence (the therapist as a blank and hidden screen upon which the patient projects or transfers his repressed emotions), free association as the exclusive technique used to gain access to and unlock the unconscious, dream interpretation with the mandatory latent and forbidden content symbolically transformed into the manifest - have all literally vanished within the first decades of practice.

Other postulates - most notably transference and counter-transference, ambivalence, resistance, regression, anxiety, and conversion symptoms - have survived to become cornerstones of modern therapeutic modalities, whatever their origin. So did, in various disguises, the idea that there is a clear path leading from unconscious (or conscious) conflict to signal anxiety, to repression, and to symptom formation (be it neuroses, rooted in current deprivation, or psychoneuroses, the outcomes of childhood conflicts). The existence of anxiety-preventing defense mechanisms is also widely accepted.

Freud's initial obsession with sex as the sole driver of psychic exchange and evolution has earned him derision and diatribe aplenty. Clearly, a child of the repressed sexuality of Victorian times and the Viennese middle-class, he was fascinated with perversions and fantasies. The Oedipus and Electra complexes are reflections of

these fixations. But their origin in Freud's own psychopathologies does not render them less revolutionary. Even a century later, child sexuality and incest fantasies are more or less taboo topics of serious study and discussion.

Ernst Kris said in 1947 that Psychoanalysis is:

"...(N)othing but human behavior considered from the standpoint of conflict. It is the picture of the mind divided against itself with attendant anxiety and other dysphoric effects, with adaptive and maladaptive defensive and coping strategies, and with symptomatic behaviors when the defense fail."

But Psychoanalysis is more than a theory of the mind. It is also a theory of the body and of the personality and of society. It is a Social Sciences Theory of Everything. It is a bold - and highly literate - attempt to tackle the psychophysical problem and the Cartesian body versus mind conundrum. Freud himself noted that the unconscious has both physiological (instinct) and mental (drive) aspects. He wrote:

"(The unconscious is) a concept on the frontier between the mental and the somatic, as the physical representative of the stimuli originating from within the organism and reaching the mind" (Standard Edition Volume XIV).

Psychoanalysis is, in many ways, the application of Darwin's theory of evolution in psychology and sociology. Survival is transformed into narcissism and the reproductive instincts assume the garb of the Freudian sex drive. But Freud went a daring step forward by suggesting that social structures and strictures (internalized as the

superego) are concerned mainly with the repression and redirection of natural instincts. Signs and symbols replace reality and all manner of substitutes (such as money) stand in for primary objects in our early formative years.

To experience our true selves and to fulfill our wishes, we resort to Phantasies (e.g., dreams, "screen memories") where imagery and irrational narratives - displaced, condensed, rendered visually, revised to produce coherence, and censored to protect us from sleep disturbances - represent our suppressed desires. Current neuroscience tends to refute this "dreamwork" conjecture but its value is not to be found in its veracity (or lack thereof).

These musings about dreams, slips of tongue, forgetfulness, the psychopathology of everyday life, and associations were important because they were the first attempt at deconstruction, the first in-depth insight into human activities such as art, myth-making, propaganda, politics, business, and warfare, and the first coherent explanation of the convergence of the aesthetic with the "ethic" (i.e., the socially acceptable and condoned). Ironically, Freud's contributions to cultural studies may far outlast his "scientific" "theory" of the mind.

It is ironic that Freud, a medical doctor (neurologist), the author of a "Project for a Scientific Psychology", should be so chastised by scientists in general and neuroscientists in particular. Psychoanalysis used to be practiced only by psychiatrists. But we live at an age when mental disorders are thought to have physiological-chemical-genetic origins. All psychological theories and talk therapies are disparaged by "hard" scientists.

Still, the pendulum had swung both ways many times

before. Hippocrates ascribed mental afflictions to a balance of bodily humors (blood, phlegm, yellow and black bile) that is out of kilt. So did Galen, Bartholomeus Anglicus, Johan Weyer (1515-88). Paracelsus (1491-1541), and Thomas Willis, who attributed psychological disorders to a functional "fault of the brain".

The tide turned with Robert Burton who wrote "Anatomy of Melancholy" and published it in 1621. He forcefully propounded the theory that psychic problems are the sad outcomes of poverty, fear, and solitude.

A century later, Francis Gall (1758-1828) and Spurzheim (1776-1832) traced mental disorders to lesions of specific areas of the brain, the forerunner of the now-discredited discipline of phrenology. The logical chain was simple: the brain is the organ of the mind, thus, various faculties can be traced to its parts.

Morel, in 1809, proposed a compromise which has since ruled the discourse. The propensities for psychological dysfunctions, he suggested, are inherited but triggered by adverse environmental conditions. A Lamarckist, he was convinced that acquired mental illnesses are handed down the generations. Esquirol concurred in 1845 as did Henry Maudsley in 1879 and Adolf Meyer soon thereafter. Heredity predisposes one to suffer from psychic malaise but psychological and "moral" (social) causes precipitate it.

And, yet, the debate was and is far from over. Wilhelm Greisinger published "The Pathology and Therapy of Mental Disorders" in 1845. In it he traced their etiology to "neuropathologies", physical disorders of the brain. He allowed for heredity and the environment to play their parts, though. He was also the first to point out the

importance of one's experiences in one's first years of life.

Jean-Martin Charcot, a neurologist by training, claimed to have cured hysteria with hypnosis. But despite this demonstration of non-physiological intervention, he insisted that hysteroid symptoms were manifestations of brain dysfunction. Weir Mitchell coined the term "neurasthenia" to describe an exhaustion of the nervous system (depression). Pierre Janet discussed the variations in the strength of the nervous activity and said that they explained the narrowing field of consciousness (whatever that meant).

None of these "nervous" speculations was supported by scientific, experimental evidence. Both sides of the debate confined themselves to philosophizing and ruminating. Freud was actually among the first to base a theory on actual clinical observations. Gradually, though, his work - buttressed by the concept of sublimation - became increasingly metaphysical. Its conceptual pillars came to resemble Bergson's élan vital and Schopenhauer's Will. French philosopher Paul Ricoeur called Psychoanalysis (depth psychology) "the hermeneutics of suspicion".

All theories - scientific or not - start with a problem. They aim to solve it by proving that what appears to be "problematic" is not. They re-state the conundrum, or introduce new data, new variables, a new classification, or new organizing principles. They incorporate the problem in a larger body of knowledge, or in a conjecture ("solution"). They explain why we thought we had an issue on our hands - and how it can be avoided, vitiated, or resolved.

Scientific theories invite constant criticism and revision. They yield new problems. They are proven erroneous and

are replaced by new models which offer better explanations and a more profound sense of understanding - often by solving these new problems. From time to time, the successor theories constitute a break with everything known and done till then. These seismic convulsions are known as "paradigm shifts".

Contrary to widespread opinion - even among scientists - science is not only about "facts". It is not merely about quantifying, measuring, describing, classifying, and organizing "things" (entities). It is not even concerned with finding out the "truth". Science is about providing us with concepts, explanations, and predictions (collectively known as "theories") and thus endowing us with a sense of understanding of our world.

Scientific theories are allegorical or metaphoric. They revolve around symbols and theoretical constructs, concepts and substantive assumptions, axioms and hypotheses - most of which can never, even in principle, be computed, observed, quantified, measured, or correlated with the world "out there". By appealing to our imagination, scientific theories reveal what David Deutsch calls "the fabric of reality".

Like any other system of knowledge, science has its fanatics, heretics, and deviants.

Instrumentalists, for instance, insist that scientific theories should be concerned exclusively with predicting the outcomes of appropriately designed experiments. Their explanatory powers are of no consequence. Positivists ascribe meaning only to statements that deal with observables and observations.

Instrumentalists and positivists ignore the fact that

predictions are derived from models, narratives, and organizing principles. In short: it is the theory's explanatory dimensions that determine which experiments are relevant and which are not. Forecasts - and experiments - that are not embedded in an understanding of the world (in an explanation) do not constitute science.

Granted, predictions and experiments are crucial to the growth of scientific knowledge and the winnowing out of erroneous or inadequate theories. But they are not the only mechanisms of natural selection. There are other criteria that help us decide whether to adopt and place confidence in a scientific theory or not. Is the theory aesthetic (parsimonious), logical, does it provide a reasonable explanation and, thus, does it further our understanding of the world?

David Deutsch in "The Fabric of Reality" (p. 11):

"... (I)t is hard to give a precise definition of 'explanation' or 'understanding'. Roughly speaking, they are about 'why' rather than 'what'; about the inner workings of things; about how things really are, not just how they appear to be; about what must be so, rather than what merely happens to be so; about laws of nature rather than rules of thumb. They are also about coherence, elegance, and simplicity, as opposed to arbitrariness and complexity ..."

Reductionists and emergentists ignore the existence of a hierarchy of scientific theories and meta-languages. They believe - and it is an article of faith, not of science - that complex phenomena (such as the human mind) can be reduced to simple ones (such as the physics and chemistry of the brain). Furthermore, to them the act of reduction is, in itself, an explanation and a form of pertinent

understanding. Human thought, fantasy, imagination, and emotions ***are*** nothing but electric currents and spurts of chemicals in the brain, they say.

Holists, on the other hand, refuse to consider the possibility that some higher-level phenomena can, indeed, be fully reduced to base components and primitive interactions. They ignore the fact that reductionism sometimes does provide explanations and understanding. The properties of water, for instance, do spring forth from its chemical and physical composition and from the interactions between its constituent atoms and subatomic particles.

Still, there is a general agreement that scientific theories must be abstract (independent of specific time or place), intersubjectively explicit (contain detailed descriptions of the subject matter in unambiguous terms), logically rigorous (make use of logical systems shared and accepted by the practitioners in the field), empirically relevant (correspond to results of empirical research), useful (in describing and/or explaining the world), and provide typologies and predictions.

A scientific theory should resort to primitive (atomic) terminology and all its complex (derived) terms and concepts should be defined in these indivisible terms. It should offer a map unequivocally and consistently connecting operational definitions to theoretical concepts.

Operational definitions that connect to the same theoretical concept should not contradict each other (be negatively correlated). They should yield agreement on measurement conducted independently by trained experimenters. But investigation of the theory of its implication can proceed even without quantification.

Theoretical concepts need not necessarily be measurable or quantifiable or observable. But a scientific theory should afford at least four levels of quantification of its operational and theoretical definitions of concepts: nominal (labeling), ordinal (ranking), interval and ratio.

As we said, scientific theories are not confined to quantified definitions or to a classificatory apparatus. To qualify as scientific they must contain statements about relationships (mostly causal) between concepts - empirically-supported laws and/or propositions (statements derived from axioms).

Philosophers like Carl Hempel and Ernest Nagel regard a theory as scientific if it is hypothetico-deductive. To them, scientific theories are sets of inter-related laws. We know that they are inter-related because a minimum number of axioms and hypotheses yield, in an inexorable deductive sequence, everything else known in the field the theory pertains to.

Explanation is about retrodiction - using the laws to show how things happened. Prediction is using the laws to show how things ***will*** happen. Understanding is explanation and prediction combined.

William Whewell augmented this somewhat simplistic point of view with his principle of "consilience of inductions". Often, he observed, inductive explanations of disparate phenomena are unexpectedly traced to one underlying cause. This is what scientific theorizing is about - finding the common source of the apparently separate.

This omnipotent view of the scientific endeavor competes with a more modest, semantic school of philosophy of

science.

Many theories - especially ones with breadth, width, and profundity, such as Darwin's theory of evolution - are not deductively integrated and are very difficult to test (falsify) conclusively. Their predictions are either scant or ambiguous.

Scientific theories, goes the semantic view, are amalgams of models of reality. These are empirically meaningful only inasmuch as they are empirically (directly and therefore semantically) applicable to a limited area. A typical scientific theory is not constructed with explanatory and predictive aims in mind. Quite the opposite: the choice of models incorporated in it dictates its ultimate success in explaining the Universe and predicting the outcomes of experiments.

Are psychological theories scientific theories by any definition (prescriptive or descriptive)? Hardly.

First, we must distinguish between psychological theories and the way that some of them are applied (psychotherapy and psychological plots). Psychological plots are the narratives co-authored by the therapist and the patient during psychotherapy. These narratives are the outcomes of applying psychological theories and models to the patient's specific circumstances.

Psychological plots amount to storytelling - but they are still instances of the psychological theories used. The instances of theoretical concepts in concrete situations form part of every theory. Actually, the only way to test psychological theories - with their dearth of measurable entities and concepts - is by examining such instances (plots).

Storytelling has been with us since the days of campfire and besieging wild animals. It serves a number of important functions: amelioration of fears, communication of vital information (regarding survival tactics and the characteristics of animals, for instance), the satisfaction of a sense of order (predictability and justice), the development of the ability to hypothesize, predict and introduce new or additional theories and so on.

We are all endowed with a sense of wonder. The world around us in inexplicable, baffling in its diversity and myriad forms. We experience an urge to organize it, to "explain the wonder away", to order it so that we know what to expect next (predict). These are the essentials of survival. But while we have been successful at imposing our mind on the outside world – we have been much less successful when we tried to explain and comprehend our internal universe and our behavior.

Psychology is not an exact science, nor can it ever be. This is because its "raw material" (humans and their behavior as individuals and en masse) is not exact. It will never yield natural laws or universal constants (like in physics). Experimentation in the field is constrained by legal and ethical rules. Humans tend to be opinionated, develop resistance, and become self-conscious when observed.

The relationship between the structure and functioning of our (ephemeral) mind, the structure and modes of operation of our (physical) brain, and the structure and conduct of the outside world have been a matter for heated debate for millennia.

Broadly speaking, there are two schools of thought:

One camp identify the substrate (brain) with its product (mind). Some of these scholars postulate the existence of a lattice of preconceived, born, categorical knowledge about the universe – the vessels into which we pour our experience and which mould it.

Others within this group regard the mind as a black box. While it is possible in principle to know its input and output, it is impossible, again in principle, to understand its internal functioning and management of information. To describe this input-output mechanism, Pavlov coined the word "conditioning", Watson adopted it and invented "behaviorism", Skinner came up with "reinforcement".

Epiphenomenologists (proponents of theories of emergent phenomena) regard the mind as the by-product of the complexity of the brain's "hardware" and "wiring". But all of them ignore the psychophysical question: what ***IS*** the mind and ***HOW*** is it linked to the brain?

The other camp assumes the airs of "scientific" and "positivist" thinking. It speculates that the mind (whether a physical entity, an epiphenomenon, a non-physical principle of organization, or the result of introspection) has a structure and a limited set of functions. It is argued that a "mind owner's manual" could be composed, replete with engineering and maintenance instructions. It proffers a dynamics of the psyche.

The most prominent of these "psychodynamists" was, of course, Freud. Though his disciples (Adler, Horney, the object-relations lot) diverged wildly from his initial theories, they all shared his belief in the need to "scientify" and objectify psychology.

Freud, a medical doctor by profession (neurologist) -

preceded by another M.D., Josef Breuer – put forth a theory regarding the structure of the mind and its mechanics: (suppressed) energies and (reactive) forces. Flow charts were provided together with a method of analysis, a mathematical physics of the mind.

Many hold all psychodynamic theories to be a mirage. An essential part is missing, they observe: the ability to test the hypotheses, which derive from these "theories". Though very convincing and, surprisingly, possessed of great explanatory powers, being non-verifiable and non-falsifiable as they are – psychodynamic models of the mind cannot be deemed to possess the redeeming features of scientific theories.

Deciding between the two camps was and is a crucial matter. Consider the clash - however repressed - between psychiatry and psychology. The former regards "mental disorders" as euphemisms - it acknowledges only the reality of brain dysfunctions (such as biochemical or electric imbalances) and of hereditary factors. The latter (psychology) implicitly assumes that something exists (the "mind", the "psyche") which cannot be reduced to hardware or to wiring diagrams. Talk therapy is aimed at that something and supposedly interacts with it.

But perhaps the distinction is artificial. Perhaps the mind is simply the way we experience our brains. Endowed with the gift (or curse) of introspection, we experience a duality, a split, constantly being both observer and observed. Moreover, talk therapy involves ***TALKING*** - which is the transfer of energy from one brain to another through the air. This is a directed, specifically formed energy, intended to trigger certain circuits in the recipient brain. It should come as no surprise if it were to be discovered that talk therapy has clear physiological effects

upon the brain of the patient (blood volume, electrical activity, discharge and absorption of hormones, etc.).

All this would be doubly true if the mind were, indeed, only an emergent phenomenon of the complex brain - two sides of the same coin.

Psychological theories of the mind are metaphors of the mind. They are fables and myths, narratives, stories, hypotheses, conjunctures. They play (exceedingly) important roles in the psychotherapeutic setting – but not in the laboratory. Their form is artistic, not rigorous, not testable, less structured than theories in the natural sciences. The language used is polyvalent, rich, effusive, ambiguous, evocative, and fuzzy – in short, metaphorical. These theories are suffused with value judgments, preferences, fears, post facto and ad hoc constructions. None of this has methodological, systematic, analytic and predictive merits.

Still, the theories in psychology are powerful instruments, admirable constructs, and they satisfy important needs to explain and understand ourselves, our interactions with others, and with our environment.

The attainment of peace of mind is a need, which was neglected by Maslow in his famous hierarchy. People sometimes sacrifice material wealth and welfare, resist temptations, forgo opportunities, and risk their lives – in order to secure it. There is, in other words, a preference of inner equilibrium over homeostasis. It is the fulfillment of this overwhelming need that psychological theories cater to. In this, they are no different to other collective narratives (myths, for instance).

Still, psychology is desperately trying to maintain contact

with reality and to be thought of as a scientific discipline. It employs observation and measurement and organizes the results, often presenting them in the language of mathematics. In some quarters, these practices lends it an air of credibility and rigorousness. Others snidely regard the as an elaborate camouflage and a sham. Psychology, they insist, is a pseudo-science. It has the trappings of science but not its substance.

Worse still, while historical narratives are rigid and immutable, the application of psychological theories (in the form of psychotherapy) is "tailored" and "customized" to the circumstances of each and every patient (client). The user or consumer is incorporated in the resulting narrative as the main hero (or anti-hero). This flexible "production line" seems to be the result of an age of increasing individualism.

True, the "language units" (large chunks of denotates and connotates) used in psychology and psychotherapy are one and the same, regardless of the identity of the patient and his therapist. In psychoanalysis, the analyst is likely to always employ the tripartite structure (Id, Ego, Superego). But these are merely the language elements and need not be confused with the idiosyncratic plots that are weaved in every encounter. Each client, each person, and his own, unique, irreplicable, plot.

To qualify as a "psychological" (both meaningful and instrumental) plot, the narrative, offered to the patient by the therapist, must be:

a. ***All-inclusive (anamnetic)*** – It must encompass, integrate and incorporate all the facts known about the protagonist.

b. ***Coherent*** – It must be chronological, structured and causal.

c. ***Consistent*** – Self-consistent (its subplots cannot contradict one another or go against the grain of the main plot) and consistent with the observed phenomena (both those related to the protagonist and those pertaining to the rest of the universe).

d. ***Logically compatible*** – It must not violate the laws of logic both internally (the plot must abide by some internally imposed logic) and externally (the Aristotelian logic which is applicable to the observable world).

e. ***Insightful (diagnostic)*** – It must inspire in the client a sense of awe and astonishment which is the result of seeing something familiar in a new light or the result of seeing a pattern emerging out of a big body of data. The insights must constitute the inevitable conclusion of the logic, the language, and of the unfolding of the plot.

f. ***Aesthetic*** – The plot must be both plausible and "right", beautiful, not cumbersome, not awkward, not discontinuous, smooth, parsimonious, simple, and so on.

g. ***Parsimonious*** – The plot must employ the minimum numbers of assumptions and entities in order to satisfy all the above conditions.

h. ***Explanatory*** – The plot must explain the behavior of other characters in the plot, the hero's decisions and behavior, why events developed the way they did.

i. ***Predictive (prognostic)*** – The plot must possess the ability to predict future events, the future behavior of the hero and of other meaningful figures and the inner emotional and cognitive dynamics.

j. ***Therapeutic*** – With the power to induce change, encourage functionality, make the patient happier and more content with himself (ego-syntony), with others, and with his circumstances.

k. ***Imposing*** – The plot must be regarded by the client as the preferable organizing principle of his life's events and a torch to guide him in the dark (vade mecum).

l. ***Elastic*** – The plot must possess the intrinsic abilities to self organize, reorganize, give room to emerging order, accommodate new data comfortably, and react flexibly to attacks from within and from without.

In all these respects, a psychological plot is a theory in disguise. Scientific theories satisfy most of the above conditions as well. But this apparent identity is flawed. The important elements of testability, verifiability, refutability, falsifiability, and repeatability – are all largely missing from psychological theories and plots. No experiment could be designed to test the statements within the plot, to establish their truth-value and, thus, to convert them to theorems or hypotheses in a theory.

There are four reasons to account for this inability to test and prove (or falsify) psychological theories:

1. ***Ethical*** – Experiments would have to be conducted, involving the patient and others. To

achieve the necessary result, the subjects will have to be ignorant of the reasons for the experiments and their aims. Sometimes even the very performance of an experiment will have to remain a secret (double blind experiments). Some experiments may involve unpleasant or even traumatic experiences. This is ethically unacceptable.

2. ***The Psychological Uncertainty Principle*** – The initial state of a human subject in an experiment is usually fully established. But both treatment and experimentation influence the subject and render this knowledge irrelevant. The very processes of measurement and observation influence the human subject and transform him or her - as do life's circumstances and vicissitudes.

3. ***Uniqueness*** – Psychological experiments are, therefore, bound to be unique, unrepeatable, cannot be replicated elsewhere and at other times even when they are conducted with the ***SAME*** subjects. This is because the subjects are never the same due to the aforementioned psychological uncertainty principle. Repeating the experiments with other subjects adversely affects the scientific value of the results.

4. ***The undergeneration of testable hypotheses*** – Psychology does not generate a sufficient number of hypotheses, which can be subjected to scientific testing. This has to do with the fabulous (=storytelling) nature of psychology. In a way, psychology has affinity with some private languages. It is a form of art and, as such, is self-sufficient and self-contained. If structural, internal

constraints are met – a statement is deemed true even if it does not satisfy external scientific requirements.

So, what are psychological theories and plots good for? They are the instruments used in the procedures which induce peace of mind (even happiness) in the client. This is done with the help of a few embedded mechanisms:

a. ***The Organizing Principle*** – Psychological plots offer the client an organizing principle, a sense of order, meaningfulness, and justice, an inexorable drive toward well defined (though, perhaps, hidden) goals, the feeling of being part of a whole. They strive to answer the "why's" and "how's" of life. They are dialogic. The client asks: "why am I (suffering from a syndrome) and how (can I successfully tackle it)". Then, the plot is spun: "you are like this not because the world is whimsically cruel but because your parents mistreated you when you were very young, or because a person important to you died, or was taken away from you when you were still impressionable, or because you were sexually abused and so on". The client is becalmed by the very fact that there is an explanation to that which until now monstrously taunted and haunted him, that he is not the plaything of vicious Gods, that there is a culprit (focusing his diffuse anger). His belief in the existence of order and justice and their administration by some supreme, transcendental principle is restored. This sense of "law and order" is further enhanced when the plot yields predictions which come true (either because they are self-fulfilling or because some real,

underlying "law" has been discovered).

b. ***The Integrative Principle*** – The client is offered, through the plot, access to the innermost, hitherto inaccessible, recesses of his mind. He feels that he is being reintegrated, that "things fall into place". In psychodynamic terms, the energy is released to do productive and positive work, rather than to induce distorted and destructive forces.

c. ***The Purgatory Principle*** – In most cases, the client feels sinful, debased, inhuman, decrepit, corrupting, guilty, punishable, hateful, alienated, strange, mocked and so on. The plot offers him absolution. The client's suffering expurgates, cleanses, absolves, and atones for his sins and handicaps. A feeling of hard won achievement accompanies a successful plot. The client sheds layers of functional, adaptive stratagems rendered dysfunctional and maladaptive. This is inordinately painful. The client feels dangerously naked, precariously exposed. He then assimilates the plot offered to him, thus enjoying the benefits emanating from the previous two principles and only then does he develop new mechanisms of coping. Therapy is a mental crucifixion and resurrection and atonement for the patient's sins. It is a religious experience. Psychological theories and plots are in the role of the scriptures from which solace and consolation can be always gleaned.

"I am actually not a man of science at all. . . . I am nothing but a conquistador by temperament, an adventurer."

(Sigmund Freud, letter to Fleiss, 1900)

"If you bring forth that which is in you, that which you bring forth will be your salvation".

(The Gospel of Thomas)

"No, our science is no illusion. But an illusion it would be to suppose that what science cannot give us we cannot get elsewhere."

(Sigmund Freud, "The Future of an Illusion")

Harold Bloom called Freud "The central imagination of our age". That psychoanalysis is not a scientific theory in the strict, rigorous sense of the word has long been established. Yet, most criticisms of Freud's work (by the likes of Karl Popper, Adolf Grunbaum, Havelock Ellis, Malcolm Macmillan, and Frederick Crews) pertain to his - long-debunked - scientific pretensions.

Today it is widely accepted that psychoanalysis - though some of its tenets are testable and, indeed, have been experimentally tested and invariably found to be false or uncorroborated - is a system of ideas. It is a cultural construct, and a (suggested) deconstruction of the human mind. Despite aspirations to the contrary, psychoanalysis is not - and never has been - a value-neutral physics or dynamics of the psyche.

Freud also stands accused of generalizing his own perversions and of reinterpreting his patients' accounts of their memories to fit his preconceived notions of the unconscious . The practice of psychoanalysis as a therapy has been castigated as a crude form of brainwashing within cult-like settings.

Feminists criticize Freud for casting women in the role of "defective" (naturally castrated and inferior) men. Scholars of culture expose the Victorian and middle-class roots of his theories about suppressed sexuality. Historians deride and decry his stifling authoritarianism and frequent and expedient conceptual reversals.

Freud himself would have attributed many of these diatribes to the defense mechanisms of his critics. Projection, resistance, and displacement do seem to be playing a prominent role. Psychologists are taunted by the lack of rigor of their profession, by its literary and artistic qualities, by the dearth of empirical support for its assertions and fundaments, by the ambiguity of its terminology and ontology, by the derision of "proper" scientists in the "hard" disciplines, and by the limitations imposed by their experimental subjects (humans). These are precisely the shortcomings that they attribute to psychoanalysis.

Indeed, psychological narratives - psychoanalysis first and foremost - are not "scientific theories" by any stretch of this much-bandied label. They are also unlikely to ever become ones. Instead - like myths, religions, and ideologies - they are organizing principles.

Psychological "theories" do not explain the world. At best, they describe reality and give it "true", emotionally-resonant, heuristic and hermeneutic meaning. They are less concerned with predictive feats than with "healing" - the restoration of harmony among people and inside them.

Therapies - the practical applications of psychological "theories" - are more concerned with function, order, form, and ritual than with essence and replicable performance. The interaction between patient and

therapist is a microcosm of society, an encapsulation and reification of all other forms of social intercourse. Granted, it is more structured and relies on a body of knowledge gleaned from millions of similar encounters. Still, the therapeutic process is nothing more than an insightful and informed dialog whose usefulness is well-attested to.

Both psychological and scientific theories are creatures of their times, children of the civilizations and societies in which they were conceived, context-dependent and culture-bound. As such, their validity and longevity are always suspect. Both hard-edged scientists and thinkers in the "softer" disciplines are influenced by contemporary values, mores, events, and interpellations.

The difference between "proper" theories of dynamics and psychodynamic theories is that the former asymptotically aspire to an objective "truth" "out there" - while the latter emerge and emanate from a kernel of inner, introspective, truth that is immediately familiar and is the bedrock of their speculations. Scientific theories - as opposed to psychological "theories" - need, therefore, to be tested, falsified, and modified because their truth is not self-contained.

Still, psychoanalysis was, when elaborated, a Kuhnian paradigm shift. It broke with the past completely and dramatically. It generated an inordinate amount of new, unsolved, problems. It suggested new methodological procedures for gathering empirical evidence (research strategies). It was based on observations (however scant and biased). In other words, it was experimental in nature, not merely theoretical. It provided a framework of reference, a conceptual sphere within which new ideas developed.

That it failed to generate a wealth of testable hypotheses and to account for discoveries in neurology does not detract from its importance. Both relativity theories were and, today, string theories are, in exactly the same position in relation to their subject matter, physics.

In 1963, Karl Jaspers made an important distinction between the scientific activities of Erklaren and Verstehen. Erklaren is about finding pairs of causes and effects. Verstehen is about grasping connections between events, sometimes intuitively and non-causally. Psychoanalysis is about Verstehen, not about Erklaren. It is a hypothetico-deductive method for gleaning events in a person's life and generating insights regarding their connection to his current state of mind and functioning.

So, is psychoanalysis a science, pseudo-science, or sui generis?

Psychoanalysis is a field of study, not a theory. It is replete with neologisms and formalism but, like Quantum Mechanics, it has many incompatible interpretations. It is, therefore, equivocal and self-contained (recursive). Psychoanalysis dictates which of its hypotheses are testable and what constitutes its own falsification. In other words, it is a meta-theory: a theory about generating theories in psychology.

Moreover, psychoanalysis the theory is often confused with psychoanalysis the therapy. Conclusively proving that the therapy works does not establish the veridicality, the historicity, or even the usefulness of the conceptual edifice of the theory. Furthermore, therapeutic techniques evolve far more quickly and substantially than the theories that ostensibly yield them. They are self-modifying "moving targets" - not rigid and replicable procedures and

rituals.

Another obstacle in trying to establish the scientific value of psychoanalysis is its ambiguity. It is unclear, for instance, what in psychoanalysis qualify as causes - and what as their effects.

Consider the critical construct of the unconscious. Is it the reason for - does it cause - our behavior, conscious thoughts, and emotions? Does it provide them with a "ratio" (explanation)? Or are they mere symptoms of inexorable underlying processes? Even these basic questions receive no "dynamic" or "physical" treatment in classic (Freudian) psychoanalytic theory. So much for its pretensions to be a scientific endeavor.

Psychoanalysis is circumstantial and supported by epistemic accounts, starting with the master himself. It appeals to one's common sense and previous experience. Its statements are of these forms: "given X, Y, and Z reported by the patient - doesn't it stand to (everyday) reason that A caused X?" or "We know that B causes M, that M is very similar to X, and that B is very similar to A. Isn't it reasonable to assume that A causes X?".

In therapy, the patient later confirms these insights by feeling that they are "right" and "correct", that they are epiphanous and revelatory, that they possess retrodictive and predictive powers, and by reporting his reactions to the therapist-interpreter. This acclamation seals the narrative's probative value as a basic (not to say primitive) form of explanation which provides a time frame, a coincident pattern, and sets of teleological aims, ideas and values.

Juan Rivera is right that Freud's claims about infantile life

cannot be proven, not even with a Gedankenexperimental movie camera, as Robert Vaelder suggested. It is equally true that the theory's etiological claims are epidemiologically untestable, as Grunbaum repeatedly says. But these failures miss the point and aim of psychoanalysis: to provide an organizing and comprehensive, non-tendentious, and persuasive narrative of human psychological development.

Should such a narrative be testable and falsifiable or else discarded (as the Logical Positivists insist)?

Depends if we wish to treat it as science or as an art form. This is the circularity of the arguments against psychoanalysis. If Freud's work is considered to be the modern equivalent of myth, religion, or literature - it need not be tested to be considered "true" in the deepest sense of the word. After all, how much of the science of the 19th century has survived to this day anyhow?

Psychophysics

It is impossible to rigorously prove or substantiate the existence of a soul, a psyche.

Numerous explanations have been hitherto offered:

- That what we, humans, call a soul is the way that we experience the workings of our brain (introspection experienced). This often leads to infinite regressions.

- That the soul is an epiphenomenon, the software result of a hardware complexity (much the same way as temperature, volume and pressure are the epiphenomena of a large number of gas molecules).

- That the soul does exist and that it is distinct from the body in substance (or lack of it), in form (or lack of it) and in the set of laws that it obeys ("spiritual" rather than physical). The supporters of this camp say that correlation is not causation.

In other words, the electrochemical activity in the brain, which corresponds to mental phenomena does not mean that it IS the mental phenomena. Mental phenomena do have brain (hardware) correlates – but these correlates need not be confused with the mental phenomena themselves.

Still, very few will dispute the strong connection between body and soul. Our psychic activity was attributed to the heart, the liver, even to some glands. Nowadays it is attributed to the brain, apparently with better reasons.

Since the body is a physical object, subject to physical laws, it follows that at least the connection between the two (body and soul) must obey the laws of physics.

Another question is what is the currency used by the two in their communication. Physical forces are mediated by subatomic particles. What serves to mediate between body and soul?

Language could be the medium and the mediating currency. It has both an internal, psychic representation and an objective, external one. It serves as a bridge between our inner emotions and cognition and the outside, physical world. It originates almost non-physically (a mere thought) and has profound physical impacts and effects. It has quantum aspects combined with classical determinism.

We propose that what we call the Subconscious and the Pre-Conscious (Threshold of Consciousness) are but Fields of Potentials organized in Lattices.

Potentials of what?

To represent realities (internal and external alike), we use language. Language seems to be the only thing able to consistently link our internal world with our physical surroundings. Thus, the potentials ought to be Lingual Energy Potentials.

When one of the potentials is charged with Lingual Energy – in Freud's language, when cathexis happens – it becomes a Structure. The "atoms" of the Structures, their most basic units, are the Clusters.

The Cluster constitutes a full cross cut of the soul: instinct, affect and cognition. It is hologramic and fractalic in that it reflects – though only a part – the whole. It is charged with the lingual energy which created it in the first place. The cluster is highly unstable (excited) and its lingual energy must be discharged.

This lingual energy can be released only in certain levels of energy (excitation) according to an Exclusion Principle. This is reminiscent of the rules governing the world of subatomic particles. The release of the lingual energy is Freud's anti-cathexis.

The lingual energy being what it is – it can be discharged only as language elements (its excitation levels are lingual). Put differently: the cluster will lose energy to the environment (=to the soul) in the shape of language (images, words, associations).

The defence mechanisms, known to us from classical

psychology – projection, identification, projective identification, regression, denial, conversion reaction, displacement, rationalization, intellectualization, sublimation, repression, inhibition, anxiety and a host of other defensive reactions – are but sentences in the language (valid strings or theorems). Projection, for instance, is the sentence: "It is not my trait – it is his trait". Some mechanisms – the notable examples are rationalization and intellectualization – make conscious use of language.

Whereas the levels of excitation (lingual discharge) are discrete (highly specific) – the discharged energy is limited to certain, specific, language representations. These are the "Allowed Representations". They are the only ones allowed (or enabled, to borrow from computers) in the "Allowed Levels of Excitation".

This is the reason for the principles of Disguise (camouflage) and Substitution.

An excitation is achieved only through specific (visual or verbal) representations (the Allowed Representations). If two potentials occupy the same Representational levels – they will be interchangeable. Thus, one lingual potential is able to assume the role of another.

Each cluster can be described by its own function (Eigenfunktion). This explains the variance between humans and among the intra-psychic representations. When a cluster is realized – when its energy has been discharged in the form of an allowed lingual representation – it reverts to the state of a lingual potential. This is a constant, bi-directional flow: from potential to cluster and from cluster to potential.

The initial source of energy, as we said, is what we absorbed together with lingual representations from the outside. Lingual representations ARE energy and they are thus assimilated by us. An exogenic event, for this purpose, is also a language element (consisting of a visual, three dimensional representation, an audio component and other sensa - see "The Manifold of Sense").

So, everything around us infuses us with energy which is converted into allowed representations. On the other hand, language potentials are charged with energy, become clusters, discharge the lingual energy through an allowed representation of the specific lingual energy that they possess and become potentials once more.

When a potential materializes – that is, when it becomes a cluster after being charged with lingual energy – a "Potential Singularity" remains where once the materialized potential "existed".

The person experiences this singularity as an anxiety and does his utmost to convert the cluster back into a potential. This effort is the Repression Defence Mechanism.

So, the energy used during repression is also of the lingual kind.

When the energy with which the cluster is charged is discharged, at the allowed levels of representation (that is to say, through the allowed lingual representations), the cluster is turned back into a potential. This, in effect, is repression. The anxiety signifies a state of schism in the field of potentials. It, therefore, deserves the name:

Signal Anxiety, used in the professional literature.

The signal anxiety designates not only a hole in the field of potentials but also a Conflict. How come?

The materialization of the potential (its transformation into a cluster) creates a change in the Language Field. Such a change can lead to a conflict with a social norm, for instance, or with a norm, a personal value, or an inhibition – all being lingual representations. Such a conflict ostensibly violates the conditions of the field and leads to anxiety and to repression.

Freud's Id, Ego and Superego are now easily recognizable as various states of the language field.

The Id represents all the potentials in the field. It is the principle by which the potentials are charged with lingual energy. Id is, in other words, a field equation which dictates the potential in every point of the field.

The Ego is the interaction between the language field and the world. This interaction sometimes assumes the form of a conscious dialogue.

The Superego is the interaction between the language field and the representations of the world in the language field (that is to say, the consequences of repression).

All three are, therefore, Activation Modes.

Each act of repression leaves traces. The field is altered by the act of repression and, this way, preserves the information related to it. The sum of all repressions creates a representation of the world (both internal and external) in the field. This is the Superego, the functional pattern of the field of potentials (the subconscious or the regulatory system).

The field plays constant host to materializing potentials (=the intrusion of content upon consciousness), excitation of allowed lingual (=representational) levels (=allowed representations) and realization of structures (their reversal to a state of being potentials). It is reality which determines which excitation and representation levels are the allowed ones.

The complex of these processes is Consciousness and all these functions together constitute the Ego or the Administrative System. The Ego is the functional mode of consciousness. The activities in reality are dictated both by the field of potentials and by the materializing structures – but the materialization of a structure is not a prerequisite for action.

The Id is a wave function, the equation describing the state of the field. It details the location of the potentials that can materialize into structures. It also lists the anxiety producing "potential singularities" into which a structure can be realized and then revert to being a potential.

An Association is the reconstruction of all the allowed levels of excitation (=the allowed representations of the lingual energy) of a specific structure. Different structures will have common excitation levels at disparate times. Once structures are realized and thus become potentials – they go through the excitation level common to them and to other structures. This way they alter the field (stamp it) in an identical manner. In other words: the field "remembers" similarly those structures which pass through a common excitation level in an identical manner. The next time that the potential materializes and becomes one of these structures – all the other "twin" structures are charged with an identical lingual energy. They are all be evoked together as a Hypercluster.

Another angle: when a structure is realized and reverts to being a potential, the field is "stamped". When the same Stamp is shared by a few structures – they form a Potential Hypercluster. From then on, whenever one of the potentials, which is a member in the Potential Hypercluster, materializes and becomes a structures – it "drags" with it all the other potentials which also become structures (simultaneously).

Potential Hyperclusters materialize into Hyperclusters whereas single Potentials materialize into Clusters.

The next phase of complexity is the Network (a few Hyperclusters together). This is what we call the Memory operations.

Memorizing is really the stamping of the field with the specific stamps of the structures (actually, with the specific stamps of their levels of excitation).

Our memory uses lingual representations. When we read or see something, we absorb it into the Field of Potentials (the Language Field). The absorbed energy fosters, out of the Field of Potentials, a structure or a hypercluster.

This is the process of Imprinting.

The resultant structure is realized in our brain through the allowed levels of excitation (=using the allowed lingual representations), is repressed, stamps the field (=creates a memory) and rejoins the field as a potential. The levels of excitation are like Strings that tie the potentials to each other. All the potentials that participate in a given level of excitation (=of representation) of the language - become a hypercluster during the phase of materialization.

This also is the field's organizational principle:

The potentials are aligned along the field lines (=the levels of excitation specific to these potentials). The connection between them is through lingual energy but it is devoid of any specific formal logic (mechanic or algorithmic). Thus, if potential P1 and potential P2 pass through the same excitation level on their way to becoming structures, they will organize themselves along the same line in the field and will become a hypercluster or a network when they materialize. They can, however, relate to each other a-logically (negation or contradiction) – and still constitute a part of the same hypercluster. Tis capacity is reminiscent of superposition in quantum mechanics.

Memory is the stamping of the excitation levels upon the language field. It is complex and contains lingual representations which are the only correct representations (=the only correct solutions or the only allowed levels of excitation) of a certain structure. It can be, therefore, said that the process of stamping the field (=memory) represents a "registration" or a "catalogue" of the allowed levels of excitation.

The field equations are non-temporal and non-local. The field has no time or space characteristics. The Id (=the field state function or the wave function) has solutions which do not entail the use of spatial or temporal language elements.

The asymmetry of the time arrow is derived from the Superego, which preserves the representations of the outside world. It thus records an informational asymmetry of the field itself (=memory). We possess access to past information – and no access to information pertaining to the future. The Superego is strongly related to data processing (=representations of reality) and, as a result, to informational and thermodynamic (=time) asymmetries.

The feeling of the present, on the other hand, is yielded by the Ego. It surveys the activities in the field which, by definition, take place "concurrently". The Ego feels "simultaneous", "concurrent" and current.

We could envisage a situation of partial repression of a structure. Certain elements in a structure (let's say, only the ideas) will degrade into potentials – while others (the affect, for instance) – will remain in the form of a structure. This situation could lead to pathologies – and often does (see "The Interrupted Self").

Pathologies and Symptoms

A schism is formed in the transition from potential to structure (=in the materialization process). It is a hole in the field of language which provokes anxiety. The realization of the structure brings about a structural change in the field and conflicts with other representations (=parts) of the field. This conflict in itself is anxiety provoking.

This combined anxiety forces the individual to use lingual energy to achieve repression.

A pathology occurs when only partial repression is achieved and a part structure-part potential hybrid results. This happens when the wrong levels of excitation were selected because of previous deformations in the language field. In classical psychology, the terms: "complexes" or "primary repression" are used.

The selection of wrong (=forbidden) excitation levels has two effects:

Partial repression and the materialization of other potentials into structures linked by the same (wrong)

levels of excitation.

Put differently: a Pathological Hypercluster is thus formed. The members in such a cluster are all the structures that are aligned along a field line (=the erroneously selected level of excitation) plus the partial structure whose realization was blocked because of this wrong selection. This makes it difficult for the hypercluster to be realized and a Repetition Complex or an Obsessive Compulsive Disorder (OCD) ensues.

These obsessive-compulsive behaviours are an effort to use lingual representations to consummate the realization of a pathological, "stuck", hypercluster.

A structure can occupy only one level of excitation at a time. This is why our attention span is limited and why we have to concentrate on one event or subject at a time. But there is no limit on the number of simultaneously materialized and realized clusters.

Sometimes, there are events possessed of such tremendous amounts of energy that no corresponding levels of excitation (=of language) can be found for them. This energy remains trapped in the field of potentials and detaches (Dissociation) the part of the field in which it is trapped from the field itself. This is a variety of Stamping (=the memory of the event) which is wide (it incorporates strong affective elements), direct and irreversible. Only an outside lingual (=energetic) manipulation – such as therapy – can bridge such an abyss. The earlier the event, the more engtrenched the dissociation as a trait of an ever changing field. In cases of multiple personality (Dissociative Identity Disorder), the dissociation can become a "field all its own", or a pole of the field.

Stamping of the field is achieved also by a persistent repetition of an external event.

A relevant hypercluster is materialized, is realized through predetermined levels of excitation and reverts to being a collection of potentials, thus enhancing previous, identical stampings. Ultimately, no mediation of a structure would be needed between the field and the outside event. Automatic activities – such as driving – are prime examples of this mechanism.

Hypnosis similarly involves numerous repetitions of external events – yet, here the whole field of potentials (=of language) is dissociated. The reason is that all levels of excitation are occupied by the hypnotist. To achieve this, he uses a full concentration of attention and a calculated choice of vocabulary and intonation.

Structures cannot be realized during hypnosis and the energy of the event (in this case, unadulterated lingual energy) remains confined and creates dissociations which are evoked by the hypnotist, correspond and respond to his instructions. A structure cannot be materialized when its level of excitation is occupied. This is why no conscious memory of the hypnotic session is available. Such a memory, however, is available in the field of potentials. This is Direct Stamping acheived without going through the a structure and without the materialization process.

In a way, the hypnotist is a kind of "Ultimate Hypercluster". His lingual energy is absorbed in the field of potentials and remains trapped, generating dissociations and stamping the field of potentials without resorting to a mediation of a structure (=of consciousness). The role of stamping (=memorizing) is relegated to the hypnotist and

the whole process of realization is imputed to him and to the language that he uses.

A distinction between endogenous and exogenous events is essential. Both types operate on the field of potentials and bring about the materialization of structures or dissociations. Examples: dreams and hallucinations are endogenic events which lead to dissociations.

Automatism (automatic writing) and Distributed Attention

Automatic writing is an endogenous event. It is induced exclusively under hypnosis or trance. The lingual energy of the hypnotist remains trapped in the field of potentials and causes automatic writing. Because it never materializes into a structure, it never reaches consciousness. No language representations which pass through allowed levels of excitation are generated. Conversely, all other exogenous events run their normal course – even when their results conflicted with the results of the endogenous event.

Thus, for instance, the subject can write something (which is the result of the trapped energy) – and provide, verbally, when asked, an answer which starkly contradicts the written message. The question asked is an exogenous event which influences the field of potentials. It affects the materialization of a structure which is realized through allowed levels of excitation. These levels of excitation constitute the answer provided by the subject.

This constitutes a vertical dissociation (between the written and the verbal messages, between the exogenous event and the endogenous one). At the same time, it is a horizontal dissociation (between the motor function and

the regulatory or the critical function).

The written word – which contradicts the verbal answer – turns, by its very writing, into an exogenous event and a conflict erupts.

The trapped energy is probably organized in a coherent, atructural, manner. This could be Hilgard's "Hidden Observer".

When two exogenous events influence the field of potentials simultaneously, a structure materializes. But two structures cannot be realized through the same allowed level of excitation.

How is the status (allowed or disallowed) of a level of excitation determined?

A level of excitation is allowed under the following two cumulative conditions:

1. When the energy that it represents corresponds to the energy of the structure (When they "speak the same language").
2. When it is not occupied by another structure at the exact, infinitesimal, moment of realization.

The consequence: only one of two exogenous events, which share the same level of excitation (=the same lingual representation) materializes into a structure. The second, non-materialized, event remains trapped in the field of potentials. Thus, only one of them reaches consciousness, awareness.

Homeostasis and Equilibrium of the Field of Potentials

The field aspires to a state of energetic equilibrium

(entropy) and to homeostasis (a functionality which is independent of environmental conditions). When these are violated, energy has to be traded (normally, exported) to restore them. This is achieved by the materialization of structures in such levels of excitation as to compensate for deficiencies, offset surpluses and, in general, balance the internal energy of the field. The materializing structures are "chosen" under the constraint that their levels of excitation bring the field to a state of equilibrium and / or homeostasis.

They use lingual energy in the allowed levels of excitation.

This, admittedly, is a rigid and restraining choice. In other words: this is a defence mechanism.

Alternatively, energy is imported by the stamping of the field of potentials by exogenous events. Only the events whose energy balances the internal energy of the field are "selected". Events whose energy does not comply with this restraint – are rejected or distorted. This selectivity also characterizes defence mechanisms.

Patterns, Structures, Shapes

Patterns are an attribute of networks (which are composed of interconnected and interacting hyperclusters). The field of potentials is stamped by all manner of events – endogenous as well as exogenous. The events are immediately classified in accordance with their energy content. They become part of hyperclusters or networks through the process of realization (in which lingual energy decays through the allowed levels of excitation).

These are the processes known as Assimilation (in a network) and Accommodation (the response of the

network to assimilation, its alteration as a result). Every event belongs to a hypercluster or to a network. If its level of excitation is not "recognized" (from the past) – the brain first checks the most active hyperclusters and networks (those of the recent past and immediate present). Finally, it examines those hyperclusters and networks which are rarely used (primitive). Upon detecting an energetically appropriate hypercluster or network – the event is incorporated into them. This, again, is Assimilation. Later on, the hypercluster or the network adapt to the event. This is Accommodation which leads to equilibrium.

Assimilation is possible which is not followed by accommodation. This leads to regression and to the extensive use of Primitive Defence Mechanisms.

Compatibility with Current Knowledge

Fisk (1980)

A person tends to maintain some correspondence between his Fixed Level of Energy and his level of energy at any given moment.

External events change the field equation (=the fixed level of energy) and activate calibration and regulation mechanisms that reduce or increase the level of activity. This restores the individual to his normal plateau of activity and to a balance of energy. These energetic changes are considered in advance and the level of activity is updated even before the gap is formed.

When stimuli recur they lose some of their effectiveness and they require less energy in relating to them. Dynamics such as excitement, differentiation and development provoke such an excited state that it can disintegrate the

field. A downward calibration mechanism is activated, the Integration.

When an event cannot be attributed to a hypercluster, to a network, or to a string (a field line) – a new structure is invented to incorporate it. As a result, the very shape of the field is altered. If the required alteration is sizeable, it calls for the dismantling of hyperstructures on various levels and for a forced experimentation with the construction of alternative hyperstructures.

The parsimonious path of least resistance calls for an investment of minimum energy to contain maximum energy (coherence and cohesiveness).

Structures whose level of energy (excitation) is less than the new structure are detached from the new hyperstructures created in order to accommodate it (Denial) or are incorporated into other hyperstructures (Forced Matching). A hyperstructure which contains at least one structure attached to it in a process of forced matching is a Forced Hyperstructure. The new hyperstructure is energetically stable – while the forced hyperstructure is energetically unstable. This is why the forced hyperstructure pops into consciousness (is excited) more often than other hyperstructures, including new ones.

This is the essence of a defence mechanism: an automatic pattern of thinking or acting which is characterized by its rigidity, repetitiveness, compulsiveness and behavioural and mental contraction effects. The constant instability is experienced as tension and anxiety. A lack of internal consistency and limited connections are the results.

Myers (1982)

Distinguishes between 3 components: emotions (=potentials), cognitions (=structures) and interpretations (hyperstructures) and memory (the stamping process).

Minsky (1980)

Memory is a complete conscious state and it is reconstructed as such.

In our terminology: the structure is hologramic and fractal-like.

Lazarus

Cognition (=the structure) leads to emotions (=decays into a potential).

This is a partial description of the second leg of the process.

Zajonc (1980)

Emotions (=potentials) precede cognitions (=structures). Emotion is based on an element of energy – and cognition is based on an element of information.

This distinction seems superfluous. Information is also energy – packed and ordered in a manner which enables the (appropriately trained) human brain to identify it as such. "Information", therefore, is the name that we give to a particular mode of delivery of energy.

Eisen (1987)

Emotions influence the organization of cognitions and allow for further inter-cognitive flexibility by encouraging their interconnectedness.

My interpretation is different. Emotions (=potentials) which organize themselves in structures are cognitions. The apparent distinction between emotions and cognition is deceiving.

This also renders meaningless the question of what preceded which.

See also: Piaget, Hays (1977), Marcus, Nurius, Loewenthal (1979).

Greenberg and Safran

Emotions are automatic responses to events. The primordial emotion is a biological (that is to say physical) mechanism. It reacts to events and endows them with meaning and sense. It, therefore, assists in the processing of information.

The processing is speedy and based on responses to a limited set of attributes. The emotional reaction is the raw material for the formation of cognitions.

As opposed to Loewenthal, I distinguish the processing of data within the field of potentials (=processing of potentials) from the processing of data through structures (=structural processing). Laws of transformation and conservation of energy prevail within the two types of processing. The energy is of the informational or lingual type.

The processing of potentials is poor and stereotypical and its influence is mainly motoric. Structural processing, on the other hand, is rich and spawns additional structures and alterations to the field itself.

Horowitz (1988)

All states of consciousness act in concert. When transition between these states occurs, all the components change simultaneously.

Gestalt

The organism tends to organize the stimuli in its awareness in the best possible manner (the euformic or eumorphic principle).

The characteristics of the organization are: simplicity, regularity, coordination, continuity, proximity between components, clarity. In short, it adopts the optimal Path of Least Resistance (PLR), or path of minimum energy (PME).

Epstein (1983)

The processes of integration (assimilation) and differentiation (accommodation) foster harmony. Disharmony is generated by repeating a fixed pattern without any corresponding accommodative or assimilative change.

Filter – is a situation wherein a structure in PLR/PME materializes every time as the default structure. It, therefore, permanently occupies certain levels of excitation, preventing other structures from materializing through them. This also weakens the stamping process.

The Bauer Model of Memory Organization (1981)

Our memory is made of units (=representations, which are the stampings of structures on the field). When one unit is activated, it activates other units, linked to it by way of association. There are also inhibitory mechanisms which apply to some of these links.

A memory unit activates certain units while simultaneously inhibiting others.

The stamped portion of the field of potentials which materializes into a structure does so within a hyperstructure and along a string which connects similar or identical stamped areas. All the stamped areas which are connected to a hyperstructure materialize simultaneously and occupy allowed levels of excitation. This way, other structures are prevented from using the same levels of excitation. Activation and inhibition, or prevention are simultaneous.

The Model of Internal Compatibility

A coherent experience has an affective dimension (=potential), a dimension of meaning (=structure) and of memory (=stamping). Awareness is created when there is compatibility between these dimensions (=when the structures materialize and de-materialize, are realized, without undergoing changes). The subconscious is a state of incompatibility. This forces the structures to change, it provokes denial, or forced adjustment until compatibility is obtained.

Emotions relate to appropriate meanings and memories (=potentials become structures which are, as we said, hologramic and of fractal nature). There are also inter-experiential knots: emotions, meanings and / or memories which interlink. A constant dynamics is at play. Repressions, denials and forced adjustments break structures apart and detach them from each other. This reduces the inner complexity and "internal poverty" results.

The Pathology according to Epstein (1983)

1. When mental content (events) is rejected from consciousness (=a potential which does not materialize).

2. Mental content which cannot be assimilated because it does not fit in. There is no structure appropriate to it and this entails rewiring and the formation of unstable interim structures. The latter are highly excitable and tend to get materialized and realized in constant, default, levels of excitation. This, in turn, blocks these levels of excitation to other structures. These are the mental defence mechanisms.

3. Pre-verbal and a-verbal (=no structure materializes) processing.

In this article, (1) and (3) are assumed to be facets of the same thing.

Kilstrom (1984)

A trauma tears apart the emotional side of the experience from its verbal-cognitive one (=the potential never materializes and does not turn into a structure).

Bauer (1981)

Learning and memory are situational context dependent. The more the learning is conducted in surroundings which remind the student of the original situation – the more effective it proves to be.

A context is an exogenic event whose energy evokes hyperstructures/networks along a string. The more the energy of the situation resembles (or is identical to) the energy of the original situation – the more effectively will

the right string resonate. This would lead to an Optimal Situational Resonance.

Eisen

It is the similarity of meanings which encourages memorizing.

In my terminology: structures belong to the same hyperstructures or networks along a common string in the field of potentials.

Bartlett (1932) and Nacer (1967)

Memory does not reflect reality. It is its reconstruction in light of attitudes towards it and it changes according to circumstances. The stamping is reconstructed and is transformed into a structure whose energies are influenced by its environment.

Kilstrom (1984)

Data processing is a process in which stimuli from the outer world are absorbed, go through an interpretative system, are classified, stored and reconstructed in memory.

The subconscious is part of the conscious world and it participates in its design through the processing of the incoming stimuli and their analyses. These processing and analysis are mostly unconscious, but they exert influence over the conscious.

Data is stored in three loci:

The first one is in the Sensuous Storage Centre. This is a subconscious registry and it keeps in touch with higher cognitive processes (=the imprinting of events in the field

of potentials). This is where events are analysed to their components and patterns and acquire meaning.

Primary (short term) Memory – is characterized by the focusing of attention, conscious processing (=the materialization of a structure) and repetition of the material stored.

Long Term Storage – readily available to consciousness.

We distinguish three types of memory: not reconstructible (=no stamping was made), reconstructible from one of the storage areas (=is within a structure post stamping) and memory on the level of sensual reception and processing. The latter is left as a potential, does not materialize into a structure and the imprinting is also the stamping.

The data processing is partly conscious and partly subconscious. When the structure is realized, a part of it remains a potential. Material which was processed in the subconscious cannot be consciously reconstructed in its subconscious form. A potential, after all, is not a structure. The stimuli, having passed through sensual data processing and having been transformed into processed material – constitute a series of assumptions concerning the essence of the received stimulus. Imprinting the field of potentials creates structures using lingual energy.

Meichenbaum and Gilmore (1984)

They divide the cognitive activity to three components:

Events, processes and cognitive structures.

An event means activity (=the materialization of potentials into structures). A process is the principle according to which data are organized, stored and

reconstructed, or the laws of energetic transition from potential to structure. A cognitive structure is a structure or pattern which receives data and alters both the data and itself (thus influencing the whole field).

External data are absorbed by internal structures (=imprinting) and are influenced by cognitive processes. They become cognitive events (=the excitation of a structure, the materialization into one). In all these, there is a subconscious part. Subconscious processes design received data and change them according to pre-determined principles: the data storage mechanisms, the reconstruction of memory, conclusiveness, searching and review of information.

Three principles shape the interpretation of information. The principle of availability is the first one. The individual relates to available information and not necessarily to relevant data (the defaulting of structures). The principle of representation: relating to information only if it matches conscious data. This principle is another rendition of the PLR/PME principle. It does take less energy and it does provoke less resistance to relate only to conforming data. The last principle is that of affirmation: the search for an affirmation of a theory or a hypothesis concerning reality, bringing about, in this way, the affirmation of the theory's predictions.

Bauers (1984)

Distinguishes between two kinds of knowledge and two types of deficiency: Distinction, Lack of Distinction, Understanding, Lack of Understanding.

Perception is the processing of information and consciousness is being aware of perception. The focusing

of attention transforms perception (=imprinting and the evocation of a structure) into a conscious experience (=the materialization of a structure). Perception antecedes awareness.

The subconscious can be divided to four departments:

Sub-threshold perception, Memory/Forgetfulness, Repression and Dissociation.

There is no full segregation between them and there are cross-influences.

The distinction between repression and dissociation: in repression there is no notice of anxiety producing content. In dissociation, the internal ties between mental or behavioural systems is not noted (and there is no obscuring or erasure of content).

Intuition is intellectual sensitivity to information coming from the external or from the internal surroundings – though this information was not yet clearly registered. It channels the study of the world and the observations which must lead to deep insights. This, in effect, is awareness of the process of materialization. Attention is focused on the materialization rather on the structure being materialized.

Psychotherapy

Storytelling has been with us since the days of campfire and besieging wild animals. It served a number of important functions: amelioration of fears, communication of vital information (regarding survival tactics and the characteristics of animals, for instance), the satisfaction of a sense of order (justice), the development of the ability to hypothesize, predict and introduce theories and so on.

We are all endowed with a sense of wonder. The world around us in inexplicable, baffling in its diversity and myriad forms. We experience an urge to organize it, to "explain the wonder away", to order it in order to know what to expect next (predict). These are the essentials of survival. But while we have been successful at imposing our mind's structures on the outside world – we have been much less successful when we tried to cope with our internal universe.

The relationship between the structure and functioning of our (ephemeral) mind, the structure and modes of operation of our (physical) brain and the structure and conduct of the outside world have been the matter of heated debate for millennia. Broadly speaking, there were (and still are) two ways of treating it:

There were those who, for all practical purposes, identified the origin (brain) with its product (mind). Some of them postulated the existence of a lattice of preconceived, born categorical knowledge about the universe – the vessels into which we pour our experience and which mould it. Others have regarded the mind as a black box. While it was possible in principle to know its input and output, it was impossible, again in principle, to understand its internal functioning and management of information. Pavlov coined the word "conditioning", Watson adopted it and invented "behaviourism", Skinner came up with "reinforcement". The school of epiphenomenologists (emergent phenomena) regarded the mind as the by product of the brain's "hardware" and "wiring" complexity. But all ignored the psychophysical question: what IS the mind and HOW is it linked to the brain?

The other camp was more "scientific" and "positivist". It

speculated that the mind (whether a physical entity, an epiphenomenon, a non-physical principle of organization, or the result of introspection) – had a structure and a limited set of functions. They argued that a "user's manual" could be composed, replete with engineering and maintenance instructions. The most prominent of these "psychodynamists" was, of course, Freud. Though his disciples (Adler, Horney, the object-relations lot) diverged wildly from his initial theories – they all shared his belief in the need to "scientify" and objectify psychology. Freud – a medical doctor by profession (Neurologist) and Bleuler before him – came with a theory regarding the structure of the mind and its mechanics: (suppressed) energies and (reactive) forces. Flow charts were provided together with a method of analysis, a mathematical physics of the mind.

But this was a mirage. An essential part was missing: the ability to test the hypotheses, which derived from these "theories". They were all very convincing, though, and, surprisingly, had great explanatory power. But - non-verifiable and non-falsifiable as they were – they could not be deemed to possess the redeeming features of a scientific theory.

Deciding between the two camps was and is a crucial matter. Consider the clash - however repressed - between psychiatry and psychology. The former regards "mental disorders" as euphemisms - it acknowledges only the reality of brain dysfunctions (such as biochemical or electric imbalances) and of hereditary factors. The latter (psychology) implicitly assumes that something exists (the "mind", the "psyche") which cannot be reduced to hardware or to wiring diagrams. Talk therapy is aimed at that something and supposedly interacts with it.

But perhaps the distinction is artificial. Perhaps the mind is simply the way we experience our brains. Endowed with the gift (or curse) of introspection, we experience a duality, a split, constantly being both observer and observed. Moreover, talk therapy involves TALKING - which is the transfer of energy from one brain to another through the air. This is directed, specifically formed energy, intended to trigger certain circuits in the recipient brain. It should come as no surprise if it were to be discovered that talk therapy has clear physiological effects upon the brain of the patient (blood volume, electrical activity, discharge and absorption of hormones, etc.).

All this would be doubly true if the mind was, indeed, only an emergent phenomenon of the complex brain - two sides of the same coin.

Psychological theories of the mind are metaphors of the mind. They are fables and myths, narratives, stories, hypotheses, conjunctures. They play (exceedingly) important roles in the psychotherapeutic setting – but not in the laboratory. Their form is artistic, not rigorous, not testable, less structured than theories in the natural sciences. The language used is polyvalent, rich, effusive, and fuzzy – in short, metaphorical. They are suffused with value judgements, preferences, fears, post facto and ad hoc constructions. None of this has methodological, systematic, analytic and predictive merits.

Still, the theories in psychology are powerful instruments, admirable constructs of the mind. As such, they are bound to satisfy some needs. Their very existence proves it.

The attainment of peace of mind is a need, which was neglected by Maslow in his famous rendition. People will sacrifice material wealth and welfare, will forgo

temptations, will ignore opportunities, and will put their lives in danger – just to reach this bliss of wholeness and completeness. There is, in other words, a preference of inner equilibrium over homeostasis. It is the fulfilment of this overriding need that psychological theories set out to cater to. In this, they are no different than other collective narratives (myths, for instance).

In some respects, though, there are striking differences:

Psychology is desperately trying to link up to reality and to scientific discipline by employing observation and measurement and by organizing the results and presenting them using the language of mathematics. This does not atone for its primordial sin: that its subject matter is ethereal and inaccessible. Still, it lends an air of credibility and rigorousness to it.

The second difference is that while historical narratives are "blanket" narratives – psychology is "tailored", "customized". A unique narrative is invented for every listener (patient, client) and he is incorporated in it as the main hero (or anti-hero). This flexible "production line" seems to be the result of an age of increasing individualism. True, the "language units" (large chunks of denotates and connotates) are one and the same for every "user". In psychoanalysis, the therapist is likely to always employ the tripartite structure (Id, Ego, Superego). But these are language elements and need not be confused with the plots. Each client, each person, and his own, unique, irreplicable, plot.

To qualify as a "psychological" plot, it must be:

a. ***All-inclusive (anamnetic)*** – It must encompass, integrate and incorporate all the facts known about

the protagonist.

b. ***Coherent*** – It must be chronological, structured and causal.

c. ***Consistent*** – Self-consistent (its subplots cannot contradict one another or go against the grain of the main plot) and consistent with the observed phenomena (both those related to the protagonist and those pertaining to the rest of the universe).

d. ***Logically compatible*** – It must not violate the laws of logic both internally (the plot must abide by some internally imposed logic) and externally (the Aristotelian logic which is applicable to the observable world).

e. ***Insightful (diagnostic)*** – It must inspire in the client a sense of awe and astonishment which is the result of seeing something familiar in a new light or the result of seeing a pattern emerging out of a big body of data. The insights must be the logical conclusion of the logic, the language and of the development of the plot.

f. ***Aesthetic*** – The plot must be both plausible and "right", beautiful, not cumbersome, not awkward, not discontinuous, smooth and so on.

g. ***Parsimonious*** – The plot must employ the minimum numbers of assumptions and entities in order to satisfy all the above conditions.

h. ***Explanatory*** – The plot must explain the behaviour of other characters in the plot, the hero's decisions and behaviour, why events developed the way that they did.

i. ***Predictive (prognostic)*** – The plot must possess the ability to predict future events, the future behaviour of the hero and of other meaningful figures and the inner emotional and cognitive dynamics.

j. ***Therapeutic*** – With the power to induce change (whether it is for the better, is a matter of contemporary value judgements and fashions).

k. ***Imposing*** – The plot must be regarded by the client as the preferable organizing principle of his life's events and the torch to guide him in the darkness to come.

l. ***Elastic*** – The plot must possess the intrinsic abilities to self organize, reorganize, give room to emerging order, accommodate new data comfortably, avoid rigidity in its modes of reaction to attacks from within and from without.

In all these respects, a psychological plot is a theory in disguise. Scientific theories should satisfy most of the same conditions. But the equation is flawed. The important elements of testability, verifiability, refutability, falsifiability, and repeatability – are all missing. No experiment could be designed to test the statements within the plot, to establish their truth-value and, thus, to convert them to theorems.

There are four reasons to account for this shortcoming:

1. ***Ethical*** – Experiments would have to be conducted, involving the hero and other humans. To achieve the necessary result, the subjects will have to be ignorant of the reasons for the experiments and their aims. Sometimes even the

very performance of an experiment will have to remain a secret (double blind experiments). Some experiments may involve unpleasant experiences. This is ethically unacceptable.

2. ***The Psychological Uncertainty Principle*** – The current position of a human subject can be fully known. But both treatment and experimentation influence the subject and void this knowledge. The very processes of measurement and observation influence the subject and change him.

3. ***Uniqueness*** – Psychological experiments are, therefore, bound to be unique, unrepeatable, cannot be replicated elsewhere and at other times even if they deal with the SAME subjects. The subjects are never the same due to the psychological uncertainty principle. Repeating the experiments with other subjects adversely affects the scientific value of the results.

4. ***The undergeneration of testable hypotheses*** – Psychology does not generate a sufficient number of hypotheses, which can be subjected to scientific testing. This has to do with the fabulous (=storytelling) nature of psychology. In a way, psychology has affinity with some private languages. It is a form of art and, as such, is self-sufficient. If structural, internal constraints and requirements are met – a statement is deemed true even if it does not satisfy external scientific requirements.

So, what are plots good for? They are the instruments used in the procedures, which induce peace of mind (even happiness) in the client. This is done with the help of a

few embedded mechanisms:

a. ***The Organizing Principle*** – Psychological plots offer the client an organizing principle, a sense of order and ensuing justice, of an inexorable drive toward well defined (though, perhaps, hidden) goals, the ubiquity of meaning, being part of a whole. It strives to answer the "why's" and "how's". It is dialogic. The client asks: "why am I (here follows a syndrome)". Then, the plot is spun: "you are like this not because the world is whimsically cruel but because your parents mistreated you when you were very young, or because a person important to you died, or was taken away from you when you were still impressionable, or because you were sexually abused and so on". The client is calmed by the very fact that there is an explanation to that which until now monstrously taunted and haunted him, that he is not the plaything of vicious Gods, that there is who to blame (focussing diffused anger is a very important result) and, that, therefore, his belief in order, justice and their administration by some supreme, transcendental principle is restored. This sense of "law and order" is further enhanced when the plot yields predictions which come true (either because they are self-fulfilling or because some real "law" has been discovered).

b. ***The Integrative Principle*** – The client is offered, through the plot, access to the innermost, hitherto inaccessible, recesses of his mind. He feels that he is being reintegrated, that "things fall into place". In psychodynamic terms, the energy is released to do productive and positive work, rather than to

induce distorted and destructive forces.

c. ***The Purgatory Principle*** – In most cases, the client feels sinful, debased, inhuman, decrepit, corrupting, guilty, punishable, hateful, alienated, strange, mocked and so on. The plot offers him absolution. Like the highly symbolic figure of the Saviour before him – the client's sufferings expurgate, cleanse, absolve, and atone for his sins and handicaps. A feeling of hard won achievement accompanies a successful plot. The client sheds layers of functional, adaptive clothing. This is inordinately painful. The client feels dangerously naked, precariously exposed. He then assimilates the plot offered to him, thus enjoying the benefits emanating from the previous two principles and only then does he develop new mechanisms of coping. Therapy is a mental crucifixion and resurrection and atonement for the sins. It is highly religious with the plot in the role of the scriptures from which solace and consolation can be always gleaned.

Punishment (and Ignorance)

The fact that one is ignorant of the law does not a sufficient defence in a court of law make. Ignorance is no protection against punishment. The adult is presumed to know all the laws. This presumption is knowingly and clearly false. So why is it made in the first place?

There are many types of laws. If a person is not aware of the existence of gravitation, he will still obey it and fall to the ground from a tall building. This is a law of nature and, indeed, ignorance serves as no protection and cannot shield one from its effects and applicability. But human laws cannot be assumed to have he same power. They are

culture-dependent, history-dependent, related to needs and priorities of the community of humans to which they apply. A law that is dependent and derivative is also contingent. No one can be reasonably expected to have intimate (or even passing) acquaintance with all things contingent. A special learning process, directed at the contingency must be effectuated to secure such knowledge.

Perhaps human laws reflect some in-built natural truth, discernible by all conscious, intelligent observers? Some of them give out such an impression. "Thou shalt not murder", for instance. But this makes none of them less contingent. That all human cultures throughout history obtained the same thinking regarding murder – does not bestow upon the human prohibition a privileged nomic status. In other words, no law is endowed with the status of a law of nature just by virtue of the broad agreement between humans who support it. There is no power in numbers, in this respect. A law of nature is not a statistically determined "event". At least, ideally, it should not be.

Another argument is that a person should be guided by a sense of right and wrong. This inner guide, also known as the conscience or the super-ego, is the result of social and psychological processes collectively known as "socialization". But socialization itself is contingent, in the sense that we have described. It cannot serve as a rigorous, objective benchmark. Itself a product of cultural accumulation and conditioning, it should be no more self evident than the very laws with which it tries to imbue the persons to whom it is applied.

Still, laws are made public. They are accessible to anyone who cares to get acquainted with them. Or so,

theoretically. Actually, it is inaccessible to the illiterate, to those who have not assimilated the legal jargon, or to the poor. Even if laws were uniformly accessible to all – their interpretation would not have been. In many legal systems, precedents and court decisions are an integral part of the law. Really, there is no such thing as a perfect law. Laws evolve, grow, are replaced by others, which better reflect mores and beliefs, values and fears, in general the public psychology as mediated by the legislators. This is why a class of professionals has arisen, who make it their main business to keep up with the legal evolution and revolutions. Not many can afford the services of these law-yers. In this respect, many do not have ample access to the latest (and relevant) versions of the law. Nor would it be true to say that there is no convincing way to pierce one's mind in order to ascertain whether he did know the law in advance or not. We all use stereotypes and estimates in our daily contacts with others. There is no reason to refrain from doing so only in this particular case. If an illiterate, poor person broke a law – it could safely be assumed that he did not know, a-priori, that he was doing so. Assuming otherwise would lead to falsity, something the law is supposed to try and avoid. It is, therefore, not an operational problem.

R

Religion

The demise of the great secular religions - Communism, Fascism, Nazism - led to the resurgence of the classical religions (Islam, Christianity, Judaism, Hinduism), a phenomenon now dubbed "fundamentalism". These ancient thought-systems are all-encompassing, ideological, exclusive, and missionary.

They face the last remaining secular organizing principle - democratic liberalism. Yet, as opposed to the now-defunct non-religious alternatives, liberalism is hard to defeat for the following reasons:

I. It is cyclical and, therefore, semipternal.

II. Recurrent failure is an integral and welcome phase in its development. Such breakdowns are believed to purge capitalism of its excesses. Additionally, innovation breeds "disruptive technologies" and "creative destruction".

III. Liberalism is not goal-orientated (unless one regards the platitudes about increasing wealth and welfare as "goals").

IV. It is pluralistic and, thus, tolerant and inclusive of other religions and ideologies (as long as they observe the rules of the game).

V. Democratic liberalism is adaptative, assimilative, and flexible. It is a "moving target". It is hard to destroy because it is a chameleon.

The renewed clash between religion and liberalism is

likely to result in the emergence of a hybrid: liberal, democratic confessions with clear capitalistic hallmarks.

Religion and Science

There are many kinds of narratives and organizing principles. Science is driven by evidence gathered in experiments, and by the falsification of extant theories and their replacement with newer, asymptotically truer, ones. Other systems - religion, nationalism, paranoid ideation, or art - are based on personal experiences (faith, inspiration, paranoia, etc.).

Experiential narratives can and do interact with evidential narratives and vice versa.

For instance: belief in God inspires some scientists who regard science as a method to "peek at God's cards" and to get closer to Him. Another example: the pursuit of scientific endeavors enhances one's national pride and is motivated by it. Science is often corrupted in order to support nationalistic and racist claims.

The basic units of all narratives are known by their effects on the environment. God, in this sense, is no different from electrons, quarks, and black holes. All four constructs cannot be directly observed, but the fact of their existence is derived from their effects.

Granted, God's effects are discernible only in the social and psychological (or psychopathological) realms. But this observed constraint doesn't render Him less "real". The hypothesized existence of God parsimoniously explains a myriad ostensibly unrelated phenomena and, therefore, conforms to the rules governing the formulation of scientific theories.

The locus of God's hypothesized existence is, clearly and exclusively, in the minds of believers. But this again does not make Him less real. The contents of our minds are as real as anything "out there". Actually, the very distinction between epistemology and ontology is blurred.

But is God's existence "true" - or is He just a figment of our neediness and imagination?

Truth is the measure of the ability of our models to describe phenomena and predict them. God's existence (in people's minds) succeeds to do both. For instance, assuming that God exists allows us to predict many of the behaviors of people who profess to believe in Him. The existence of God is, therefore, undoubtedly true (in this formal and strict sense).

But does God exist outside people's minds? Is He an objective entity, independent of what people may or may not think about Him? After all, if all sentient beings were to perish in a horrible calamity, the Sun would still be there, revolving as it has done from time immemorial.

If all sentient beings were to perish in a horrible calamity, would God still exist? If all sentient beings, including all humans, stop believing that there is God - would He survive this renunciation? Does God "out there" inspire the belief in God in religious folks' minds?

Known things are independent of the existence of observers (although the Copenhagen interpretation of Quantum Mechanics disputes this). Believed things are dependent on the existence of believers.

We know that the Sun exists. We don't know that God exists. We believe that God exists - but we don't and cannot know it, in the scientific sense of the word.

We can design experiments to falsify (prove wrong) the existence of electrons, quarks, and black holes (and, thus, if all these experiments fail, prove that electrons, quarks, and black holes exist). We can also design experiments to prove that electrons, quarks, and black holes exist.

But we cannot design even one experiment to falsify the existence of a God who is outside the minds of believers (and, thus, if the experiment fails, prove that God exists "out there"). Additionally, we cannot design even one experiment to prove that God exists outside the minds of believers.

What about the "argument from design"? The universe is so complex and diverse that surely it entails the existence of a supreme intelligence, the world's designer and creator, known by some as "God". On the other hand, the world's richness and variety can be fully accounted for using modern scientific theories such as evolution and the big bang. There is no need to introduce God into the equations.

Still, it is possible that God is responsible for it all. The problem is that we cannot design even one experiment to falsify this theory, that God created the Universe (and, thus, if the experiment fails, prove that God is, indeed, the world's originator). Additionally, we cannot design even one experiment to prove that God created the world.

We can, however, design numerous experiments to falsify the scientific theories that explain the creation of the Universe (and, thus, if these experiments fail, lend these theories substantial support). We can also design experiments to prove the scientific theories that explain the creation of the Universe.

It does not mean that these theories are absolutely true and immutable. They are not. Our current scientific theories are partly true and are bound to change with new knowledge gained by experimentation. Our current scientific theories will be replaced by newer, truer theories. But any and all future scientific theories will be falsifiable and testable.

Knowledge and belief are like oil and water. They don't mix. Knowledge doesn't lead to belief and belief does not yield knowledge. Belief can yield conviction or strongly-felt opinions. But belief cannot result in knowledge.

Still, both known things and believed things exist. The former exist "out there" and the latter "in our minds" and only there. But they are no less real for that.

Robots

The movie "I, Robot" is a muddled affair. It relies on shoddy pseudo-science and a general sense of unease that artificial (non-carbon based) intelligent life forms seem to provoke in us. But it goes no deeper than a comic book treatment of the important themes that it broaches. I, Robot is just another - and relatively inferior - entry is a long line of far better movies, such as "Blade Runner" and "Artificial Intelligence".

Sigmund Freud said that we have an uncanny reaction to the inanimate. This is probably because we know that – pretensions and layers of philosophizing aside – we are nothing but recursive, self aware, introspective, conscious machines. Special machines, no doubt, but machines all the same.

Consider the James bond movies. They constitute a decades-spanning gallery of human paranoia. Villains

change: communists, neo-Nazis, media moguls. But one kind of villain is a fixture in this psychodrama, in this parade of human phobias: the machine. James Bond always finds himself confronted with hideous, vicious, malicious machines and automata.

It was precisely to counter this wave of unease, even terror, irrational but all-pervasive, that Isaac Asimov, the late Sci-fi writer (and scientist) invented the Three Laws of Robotics:

1. ***A robot may not injure a human being or, through inaction, allow a human being to come to harm.***

2. ***A robot must obey the orders given it by human beings, except where such orders would conflict with the First Law.***

3. ***A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.***

Many have noticed the lack of consistency and, therefore, the inapplicability of these laws when considered together.

First, they are not derived from any coherent worldview or background. To be properly implemented and to avoid their interpretation in a potentially dangerous manner, the robots in which they are embedded must be equipped with reasonably comprehensive models of the physical universe and of human society.

Without such contexts, these laws soon lead to intractable paradoxes (experienced as a nervous breakdown by one of Asimov's robots). Conflicts are ruinous in automata based on recursive functions (Turing machines), as all robots

are. Godel pointed at one such self destructive paradox in the "Principia Mathematica", ostensibly a comprehensive and self consistent logical system. It was enough to discredit the whole magnificent edifice constructed by Russel and Whitehead over a decade.

Some argue against this and say that robots need not be automata in the classical, Church-Turing, sense. That they could act according to heuristic, probabilistic rules of decision making. There are many other types of functions (non-recursive) that can be incorporated in a robot, they remind us.

True, but then, how can one guarantee that the robot's behavior is fully predictable ? How can one be certain that robots will fully and always implement the three laws? Only recursive systems are predictable in principle, though, at times, their complexity makes it impossible.

This article deals with some commonsense, basic problems raised by the Laws. The next article in this series analyses the Laws from a few vantage points: philosophy, artificial intelligence and some systems theories.

An immediate question springs to mind: ***HOW*** will a robot identify a human being? Surely, in a future of perfect androids, constructed of organic materials, no superficial, outer scanning will suffice. Structure and composition will not be sufficient differentiating factors.

There are two ways to settle this very practical issue: one is to endow the robot with the ability to conduct a Converse Turing Test (to separate humans from other life forms) - the other is to somehow "barcode" all the robots by implanting some remotely readable signaling device

inside them (such as a RFID - Radio Frequency ID chip). Both present additional difficulties.

The second solution will prevent the robot from positively identifying humans. He will be able identify with any certainty robots and only robots (or humans with such implants). This is ignoring, for discussion's sake, defects in manufacturing or loss of the implanted identification tags. And what if a robot were to get rid of its tag? Will this also be classified as a "defect in manufacturing"?

In any case, robots will be forced to make a binary choice. They will be compelled to classify one type of physical entities as robots – and all the others as "non-robots". Will non-robots include monkeys and parrots? Yes, unless the manufacturers equip the robots with digital or optical or molecular representations of the human figure (masculine and feminine) in varying positions (standing, sitting, lying down). Or unless all humans are somehow tagged from birth.

These are cumbersome and repulsive solutions and not very effective ones. No dictionary of human forms and positions is likely to be complete. There will always be the odd physical posture which the robot would find impossible to match to its library. A human disk thrower or swimmer may easily be classified as "non-human" by a robot - and so might amputated invalids.

What about administering a converse Turing Test?

This is even more seriously flawed. It is possible to design a test, which robots will apply to distinguish artificial life forms from humans. But it will have to be non-intrusive and not involve overt and prolonged communication. The alternative is a protracted teletype session, with the human

concealed behind a curtain, after which the robot will issue its verdict: the respondent is a human or a robot. This is unthinkable.

Moreover, the application of such a test will "humanize" the robot in many important respects. Human identify other humans because they are human, too. This is called empathy. A robot will have to be somewhat human to recognize another human being, it takes one to know one, the saying (rightly) goes.

Let us assume that by some miraculous way the problem is overcome and robots unfailingly identify humans. The next question pertains to the notion of "injury" (still in the First Law). Is it limited only to physical injury (the elimination of the physical continuity of human tissues or of the normal functioning of the human body)?

Should "injury" in the First Law encompass the no less serious mental, verbal and social injuries (after all, they are all known to have physical side effects which are, at times, no less severe than direct physical "injuries")? Is an insult an "injury"? What about being grossly impolite, or psychologically abusive? Or offending religious sensitivities, being politically incorrect - are these injuries? The bulk of human (and, therefore, inhuman) actions actually offend one human being or another, have the potential to do so, or seem to be doing so.

Consider surgery, driving a car, or investing money in the stock exchange. These "innocuous" acts may end in a coma, an accident, or ruinous financial losses, respectively. Should a robot refuse to obey human instructions which may result in injury to the instruction-givers?

Consider a mountain climber – should a robot refuse to hand him his equipment lest he falls off a cliff in an unsuccessful bid to reach the peak? Should a robot refuse to obey human commands pertaining to the crossing of busy roads or to driving (dangerous) sports cars?

Which level of risk should trigger robotic refusal and even prophylactic intervention? At which stage of the interactive man-machine collaboration should it be activated? Should a robot refuse to fetch a ladder or a rope to someone who intends to commit suicide by hanging himself (that's an easy one)?

Should he ignore an instruction to push his master off a cliff (definitely), help him climb the cliff (less assuredly so), drive him to the cliff (maybe so), help him get into his car in order to drive him to the cliff... Where do the responsibility and obeisance bucks stop?

Whatever the answer, one thing is clear: such a robot must be equipped with more than a rudimentary sense of judgment, with the ability to appraise and analyse complex situations, to predict the future and to base his decisions on very fuzzy algorithms (no programmer can foresee all possible circumstances). To me, such a "robot" sounds much more dangerous (and humanoid) than any recursive automaton which does ***NOT*** include the famous Three Laws.

Moreover, what, exactly, constitutes "inaction"? How can we set apart inaction from failed action or, worse, from an action which failed by design, intentionally? If a human is in danger and the robot tries to save him and fails – how could we determine to what extent it exerted itself and did everything it could?

How much of the responsibility for a robot's inaction or partial action or failed action should be imputed to the manufacturer – and how much to the robot itself? When a robot decides finally to ignore its own programming – how are we to gain information regarding this momentous event? Outside appearances can hardly be expected to help us distinguish a rebellious robot from a lackadaisical one.

The situation gets much more complicated when we consider states of conflict.

Imagine that a robot is obliged to harm one human in order to prevent him from hurting another. The Laws are absolutely inadequate in this case. The robot should either establish an empirical hierarchy of injuries – or an empirical hierarchy of humans. Should we, as humans, rely on robots or on their manufacturers (however wise, moral and compassionate) to make this selection for us? Should we abide by their judgment which injury is the more serious and warrants an intervention?

A summary of the Asimov Laws would give us the following "truth table":

A robot must obey human commands except if:

1. Obeying them is likely to cause injury to a human, or

2. Obeying them will let a human be injured.

A robot must protect its own existence with three exceptions:

1. That such self-protection is injurious to a human;

2. That such self-protection entails inaction in the face of potential injury to a human;
3. That such self-protection results in robot insubordination (failing to obey human instructions).

Trying to create a truth table based on these conditions is the best way to demonstrate the problematic nature of Asimov's idealized yet highly impractical world.

Here is an exercise:

Imagine a situation (consider the example below or one you make up) and then create a truth table based on the above five conditions. In such a truth table, "T" would stand for "compliance" and "F" for non-compliance.

Example:

A radioactivity monitoring robot malfunctions. If it self-destructs, its human operator might be injured. If it does not, its malfunction will equally seriously injure a patient dependent on his performance.

One of the possible solutions is, of course, to introduce gradations, a probability calculus, or a utility calculus. As they are phrased by Asimov, the rules and conditions are of a threshold, yes or no, take it or leave it nature. But if robots were to be instructed to maximize overall utility, many borderline cases would be resolved.

Still, even the introduction of heuristics, probability, and utility does not help us resolve the dilemma in the example above. Life is about inventing new rules on the fly, as we go, and as we encounter new challenges in a kaleidoscopically metamorphosing world. Robots with

rigid instruction sets are ill suited to cope with that.

Note - Godel's Theorems

The work of an important, though eccentric, Czech-Austrian mathematical logician, Kurt Gödel (1906-1978) dealt with the completeness and consistency of logical systems. A passing acquaintance with his two theorems would have saved the architect a lot of time.

Gödel's First Incompleteness Theorem states that every consistent axiomatic logical system, sufficient to express arithmetic, contains true but unprovable ("not decidable") sentences. In certain cases (when the system is omega-consistent), both said sentences and their negation are unprovable. The system is consistent and true - but not "complete" because not all its sentences can be decided as true or false by either being proved or by being refuted.

The Second Incompleteness Theorem is even more earth-shattering. It says that no consistent formal logical system can prove its own consistency. The system may be complete - but then we are unable to show, using its axioms and inference laws, that it is consistent

In other words, a computational system can either be complete and inconsistent - or consistent and incomplete. By trying to construct a system both complete and consistent, a robotics engineer would run afoul of Gödel's theorem.

Note - Turing Machines

In 1936 an American (Alonzo Church) and a Briton (Alan M. Turing) published independently (as is often the case in science) the basics of a new branch in Mathematics (and logic): computability or recursive functions (later to

be developed into Automata Theory).

The authors confined themselves to dealing with computations which involved "effective" or "mechanical" methods for finding results (which could also be expressed as solutions (values) to formulae). These methods were so called because they could, in principle, be performed by simple machines (or human-computers or human-calculators, to use Turing's unfortunate phrases). The emphasis was on finiteness: a finite number of instructions, a finite number of symbols in each instruction, a finite number of steps to the result. This is why these methods were usable by humans without the aid of an apparatus (with the exception of pencil and paper as memory aids). Moreover: no insight or ingenuity were allowed to "interfere" or to be part of the solution seeking process.

What Church and Turing did was to construct a set of all the functions whose values could be obtained by applying effective or mechanical calculation methods. Turing went further down Church's road and designed the "Turing Machine" – a machine which can calculate the values of all the functions whose values can be found using effective or mechanical methods. Thus, the program running the TM (=Turing Machine in the rest of this text) was really an effective or mechanical method. For the initiated readers: Church solved the decision-problem for propositional calculus and Turing proved that there is no solution to the decision problem relating to the predicate calculus. Put more simply, it is possible to "prove" the truth value (or the theorem status) of an expression in the propositional calculus – but not in the predicate calculus. Later it was shown that many functions (even in number theory itself) were not recursive, meaning that they could

not be solved by a Turing Machine.

No one succeeded to prove that a function must be recursive in order to be effectively calculable. This is (as Post noted) a "working hypothesis" supported by overwhelming evidence. We don't know of any effectively calculable function which is not recursive, by designing new TMs from existing ones we can obtain new effectively calculable functions from existing ones and TM computability stars in every attempt to understand effective calculability (or these attempts are reducible or equivalent to TM computable functions).

The Turing Machine itself, though abstract, has many "real world" features. It is a blueprint for a computing device with one "ideal" exception: its unbounded memory (the tape is infinite). Despite its hardware appearance (a read/write head which scans a two-dimensional tape inscribed with ones and zeroes, etc.) – it is really a software application, in today's terminology. It carries out instructions, reads and writes, counts and so on. It is an automaton designed to implement an effective or mechanical method of solving functions (determining the truth value of propositions). If the transition from input to output is deterministic we have a classical automaton – if it is determined by a table of probabilities – we have a probabilistic automaton.

With time and hype, the limitations of TMs were forgotten. No one can say that the Mind is a TM because no one can prove that it is engaged in solving only recursive functions. We can say that TMs can do whatever digital computers are doing – but not that digital computers are TMs by definition. Maybe they are – maybe they are not. We do not know enough about them and about their future.

Moreover, the demand that recursive functions be computable by an UNAIDED human seems to restrict possible equivalents. Inasmuch as computers emulate human computation (Turing did believe so when he helped construct the ACE, at the time the fastest computer in the world) – they are TMs. Functions whose values are calculated by AIDED humans with the contribution of a computer are still recursive. It is when humans are aided by other kinds of instruments that we have a problem. If we use measuring devices to determine the values of a function it does not seem to conform to the definition of a recursive function. So, we can generalize and say that functions whose values are calculated by an AIDED human could be recursive, depending on the apparatus used and on the lack of ingenuity or insight (the latter being, anyhow, a weak, non-rigorous requirement which cannot be formalized).

Romanticism

Every type of human activity has a malignant equivalent.

The pursuit of happiness, the accumulation of wealth, the exercise of power, the love of one's self are all tools in the struggle to survive and, as such, are commendable. They do, however, have malignant counterparts: pursuing pleasures (hedonism), greed and avarice as manifested in criminal activities, murderous authoritarian regimes and narcissism.

What separates the malignant versions from the benign ones?

Phenomenologically, they are difficult to tell apart. In which way is a criminal distinct from a business tycoon? Many will say that there is no distinction. Still, society

treats the two differently and has set up separate social institutions to accommodate these two human types and their activities.

Is it merely a matter of ethical or philosophical judgement? I think not.

The difference seems to lie in the context. Granted, the criminal and the businessman both have the same motivation (at times, obsession): to make money. Sometimes they both employ the same techniques and adopt the same venues of action. But in which social, moral, philosophical, ethical, historical and biographical contexts do they operate?

A closer examination of their exploits exposes the unbridgeable gap between them. The criminal acts only in the pursuit of money. He has no other considerations, thoughts, motives and emotions, no temporal horizon, no ulterior or external aims, no incorporation of other humans or social institutions in his deliberations. The reverse is true for the businessman. The latter is aware of the fact that he is part of a larger fabric, that he has to obey the law, that some things are not permissible, that sometimes he has to lose sight of moneymaking for the sake of higher values, institutions, or the future. In short: the criminal is a solipsist - the businessman, a socially integrated integrated. The criminal is one track minded - the businessman is aware of the existence of others and of their needs and demands. The criminal has no context - the businessman does ("political animal").

Whenever a human activity, a human institution, or a human thought is refined, purified, reduced to its bare minimum - malignancy ensues. Leukaemia is characterized by the exclusive production of one category

of blood cells (the white ones) by the bone marrow - while abandoning the production of others. Malignancy is reductionist: do one thing, do it best, do it more and most, compulsively pursue one course of action, one idea, never mind the costs. Actually, no costs are admitted - because the very existence of a context is denied, or ignored. Costs are brought on by conflict and conflict entails the existence of at least two parties. The criminal does not include in his weltbild the Other. The dictator doesn't suffer because suffering is brought on by recognizing the other (empathy). The malignant forms are sui generis, they are dang am sich, they are categorical, they do not depend on the outside for their existence.

Put differently: the malignant forms are functional but meaningless.

Let us use an illustration to understand this dichotomy:

In France there is a man who made it his life's mission to spit the furthest a human has ever spat. This way he made it into the Guinness Book of Records (GBR). After decades of training, he succeeded to spit to the longest distance a man has ever spat and was included in the GBR under miscellany.

The following can be said about this man with a high degree of certainty:

a. The Frenchman had a purposeful life in the sense that his life had a well-delineated, narrowly focused, and achievable target, which permeated his entire life and defined them.

b. He was a successful man in that he fulfilled his main ambition in life to the fullest. We can rephrase this sentence by saying that he functioned

well.

c. He probably was a happy, content, and satisfied man as far as his main theme in life is concerned.

d. He achieved significant outside recognition and affirmation of his achievements.

e. This recognition and affirmation is not limited in time and place.

In other words, he became "part of history".

But how many of us would say that he led a meaningful life? How many would be willing to attribute meaning to his spitting efforts? Not many. His life would look to most of us ridiculous and bereft of meaning.

This judgement is facilitated by comparing his actual history with his potential or possible history. In other words, we derive the sense of meaninglessness partly from comparing his spitting career with what he could have done and achieved had he invested the same time and efforts differently.

He could have raised children, for instance. This is widely considered a more meaningful activity. But why? What makes child rearing more meaningful than distance spitting?

Nothing does but common agreement. No philosopher, scientist, or publicist can rigorously defend an argument in defence of a hierarchy of meaningfulness of human actions.

There are two reasons for this inability:

1. There is no connection between function

(functioning, functionality) and meaning (meaninglessness, meaningfulness).

2. There are different interpretations of the word "Meaning" and, yet, people use them interchangeably, obscuring the dialogue.

People often confuse Meaning and Function. When asked what is the meaning of their life they respond by using function-laden phrases. They say: "This activity lends taste (=one interpretation of meaning) to my life", or: "My role in this world is this and, once finished, I will be able to rest in pace, to die". They attach different magnitudes of meaningfulness to various human activities.

Two things are evident:

1. That people use the word "Meaning" not in its philosophically rigorous form. What they mean is really the satisfaction, even the happiness that comes with successful functioning. They want to continue to live when they are flooded by these emotions. They confuse this motivation to live on with the meaning of life. Put differently, they confuse the "why" with the "what for". The philosophical assumption that life has a meaning is a teleological one. Life - regarded linearly as a "progress bar" - proceeds towards something, a final horizon, an aim. But people relate only to what "makes them tick", the pleasure that they derive from being more or less successful in what they set out to do.

2. Either the philosophers are wrong in that they do not distinguish between human activities (from the point of view of their meaningfulness) or people

> are wrong in that they do. This apparent conflict can be resolved by observing that people and philosophers use different interpretations of the word "Meaning".

To reconcile these antithetical interpretations, it is best to consider three examples:

Assuming there were a religious man who established a new church of which only he was a member.

Would we have said that his life and actions are meaningful?

Probably not.

This seems to imply that quantity somehow bestows meaning. In other words, that meaning is an emergent phenomenon (epiphenomenon). Another right conclusion would be that meaning depends on the context. In the absence of worshippers, even the best run, well-organized, and worthy church might look meaningless. The worshippers - who are part of the church - also provide the context. This is unfamiliar territory. We are used to associate context with externality. We do not think that our organs provide us with context, for instance (unless we are afflicted by certain mental disturbances). The apparent contradiction is easily resolved: to provide context, the provider of the context provider must be either external - or with the inherent, independent capacity to be so.

The churchgoers do constitute the church - but they are not defined by it, they are external to it and they are not dependent on it. This externality - whether as a trait of the providers of context, or as a feature of an emergent phenomenon - is all-important. The very meaning of the

system is its derivative.

A few more examples to support this approach:

Imagine a national hero without a nation, an actor without an audience, and an author without (present or future) readers. Does their work have any meaning? Not really. The external perspective again proves all-important.

There is an added caveat, an added dimension here: time. To deny a work of art any meaning, we must know with total assurance that it will never be seen by anyone. Since this is an impossibility (unless it is to be destroyed) - a work of art has undeniable, intrinsic meaning, a result of the mere potential to be seen by someone, sometime, somewhere. This potential of a " single gaze" is sufficient to endow the work of art with meaning.

To a large extent, the heroes of history, its main characters, are actors with a stage and audience larger than usual. The only difference might be that future audiences often alter the magnitude of their "art": it is either diminished or magnified in the eyes of history.

The third example - originally brought up by Douglas Hofstadter in his magnificent opus "Godel, Escher, Bach - An Eternal Golden Braid" - is genetic material (DNA). Without the right "context" (amino acids) - it has no "meaning" (it does not lead to the production of proteins, the building blocks of the organism encoded in the DNA). To illustrate his point, the author sends DNA on a trip to outer space, where aliens would find it impossible to decipher it (=to understand its meaning).

By now it would seem clear that for a human activity, institution or idea to be meaningful, a context is needed. Whether we can say the same about things natural remains

to be seen. Being humans, we tend to assume a privileged status. As in certain metaphysical interpretations of classical quantum mechanics, the observer actively participates in the determination of the world. There would be no meaning if there were no intelligent observers - even if the requirement of context was satisfied (part of the "anthropic principle").

In other words, not all contexts were created equal. A human observer is needed to determine the meaning, this is an unavoidable constraint. Meaning is the label we give to the interaction between an entity (material or spiritual) and its context (material or spiritual). So, the human observer is forced to evaluate this interaction in order to extract the meaning. But humans are not identical copies, or clones. They are liable to judge the same phenomena differently, dependent upon their vantage point. They are the product of their nature and nurture, the highly specific circumstances of their lives and their idiosyncrasies.

In an age of moral and ethical relativism, a universal hierarchy of contexts is not likely to go down well with the gurus of philosophy. But we are talking about the existence of hierarchies as numerous as the number of observers. This is a notion so intuitive, so embedded in human thinking and behaviour that to ignore it would amount to ignoring reality. People (=observers) have privileged systems of attribution of meaning. They constantly and consistently prefer certain contexts to others in the detection of meaning and the set of its possible interpretations. This set would have been infinite were it not for these preferences. The context preferred, arbitrarily excludes and disallows certain interpretations (and, therefore, certain meanings).

The benign form is, therefore, the acceptance of a

plurality of contexts and of the resulting meanings.

The malignant form is to adopt (and, then, impose) a universal hierarchy of contexts with a Master Context which bestows meaning upon everything. Such malignant systems of thought are easily recognizable because they claim to be comprehensive, invariant and universal. In plain language, these thought systems pretend to explain everything, everywhere and in a way not dependent on specific circumstances. Religion is like that and so are most modern ideologies. Science tries to be different and sometimes succeeds. But humans are frail and frightened and they much prefer malignant systems of thinking because they give them the illusion of gaining absolute power through absolute, immutable knowledge.

Two contexts seem to compete for the title of Master Context in human history, the contexts which endow all meanings, permeate all aspects of reality, are universal, invariant, define truth values and solve all moral dilemmas: the Rational and the Affective (emotions).

We live in an age that despite its self-perception as rational is defined and influenced by the emotional Master Context.

This is called Romanticism - the malignant form of "being tuned" to one's emotions. It is a reaction to the "cult of idea" which characterized the Enlightenment (Belting, 1998).

Romanticism is the assertion that all human activities are founded on and directed by the individual and his emotions, experience, and mode of expression. As Belting (1998) notes, this gave rise to the concept of the "masterpiece" - an absolute, perfect, unique

(idiosyncratic) work by an immediately recognizable and idealized artist.

This relatively novel approach (in historical terms) has permeated human activities as diverse as politics, the formation of families, and art.

Families were once constructed on purely totalitarian bases. Family formation was a transaction, really, involving considerations both financial and genetic. This was substituted (during the 18th century) by love as the main motivation and foundation. Inevitably, this led to the disintegration and to the metamorphosis of the family. To establish a sturdy social institution on such a fickle basis was an experiment doomed to failure.

Romanticism infiltrated the body politic as well. All major political ideologies and movements of the 20th century had romanticist roots, Nazism more than most. Communism touted the ideals of equality and justice - while Nazism was a quasi-mythological interpretation of history. Still, both were highly romantic movements. Politicians were - and to a lesser degree today (see the case of Prince Diana), are - expected to be extraordinary in their personal lives or in their personality traits. Biographies are recast by image and public relations experts ("spin doctors") to fit this mould. Hitler was, arguably, the most romantic of all world leaders, closely followed by other dictators and authoritarian figures. It is a cliché to say that, through politicians, we re-enact our relationships with our parents. Politicians are often perceived to be father figures. But Romanticism infantilized this transference. In politicians we want to see not the wise, level headed, ideal father - but our actual parents: capriciously unpredictable, overwhelming, powerful, unjust, protecting, and awe-inspiring. This is the

romanticist view of leadership: anti-Webberian, anti bureaucratic, chaotic. And this set of predilections, later transformed to social dictates, had a profound effect on the history of the 20th century.

Romanticism manifested in art through the concept of Inspiration. An artist had to have it in order to create. This led to a conceptual divorce between art and artisanship. As late as the 18th century, there was no difference between these two classes of creative people, the artists and the artisans. Artists accepted commercial orders which included thematic instructions (the subject, choice of symbols, etc.), delivery dates, prices, etc. Art was a product, almost a commodity, and was treated as such by others (examples: Michelangelo, Leonardo da Vinci, Mozart, Goya, Rembrandt and thousands of artists of similar or lesser stature). The attitude was completely businesslike, creativity was mobilized in the service of the marketplace. Moreover, artists used conventions - more or less rigid, depending on the period - to express emotions. They traded emotional expressions where others traded in spices, or engineering skills. But they were all traders and were proud of their artisanship. Their personal lives were subject to gossip, condemnation or admiration but were not considered to be a precondition, an absolutely essential backdrop, to their art.

The romanticist view of the artist painted him into a corner. His life and art became inextricable. Artists were expected to transmute and transubstantiate their lives as well as the physical materials that they dealt with. Living (the kind of life, which is the subject of legends or fables) became an art form, at times predominantly so. It is interesting to note the prevalence of romanticist ideas in this context: weltschmerz, passion, self destruction were

considered fit for the artist. A "boring" artist would never sell as much as a "romantically-correct" one. Van Gogh, Kafka and James Dean epitomize this trend: they all died young, lived in misery, suffered self-inflicted pains, and ultimate destruction or annihilation. To paraphrase Sontag, their lives became metaphors and they all suffered from the metaphorically correct physical and mental illnesses. Kafka developed tuberculosis (his punishment as part of his on going trial), Van Gogh was mentally sick, James Dean died appropriately in an accident. In an age of social anomies, we tend to appreciate and rate highly the anomalous. Munch and Nietzsche will always be preferable to more ordinary (but perhaps equally as creative) people.

Today there is an anti-romantic backlash (divorce, the disintegration of the romantic nation-state, the death of ideologies, the commercialization and popularization of art). But this counter-revolution tackles the external, less substantial facets of Romanticism. Romanticism continues to thrive in the flourishing of mysticism, of ethnic lore, and of celebrity worship. It seems that Romanticism has changed vessels but not its cargo.

We are afraid to face the fact that life is meaningless unless WE observe it, unless WE put it in context, unless WE interpret it. We feel burdened by this realization, terrified of making the wrong moves, of using the wrong contexts, of making the wrong interpretations. We understand that there is no constant, unchanged, everlasting meaning to life, and that it all really depends on us. We denigrate this kind of meaning. A meaning that is derived by humans from human contexts and experiences is bound to be a very poor approximation to the TRUE meaning. It is bound to be asymptotic to the

Grand Design. It might well be - but this is all we have got and without it our lives will indeed prove meaningless.

S

Scarcity

My love as deep; the more I give to thee,
The more I have, for both are infinite.

(William Shakespeare, Romeo and Juliet, Act 2, Scene 2)

Are we confronted merely with a bear market in stocks - or is it the first phase of a global contraction of the magnitude of the Great Depression? The answer overwhelmingly depends on how we understand scarcity.

It will be only a mild overstatement to say that the science of economics, such as it is, revolves around the Malthusian concept of scarcity. Our infinite wants, the finiteness of our resources and the bad job we too often make of allocating them efficiently and optimally - lead to mismatches between supply and demand. We are forever forced to choose between opportunities, between alternative uses of resources, painfully mindful of their costs.

This is how the perennial textbook "Economics" (seventeenth edition), authored by Nobel prizewinner Paul Samuelson and William Nordhaus, defines the dismal science:

"Economics is the study of how societies use scarce resources to produce valuable commodities and distribute them among different people."

The classical concept of scarcity - unlimited wants vs. limited resources - is lacking. Anticipating much-feared scarcity encourages hoarding which engenders the very

evil it was meant to fend off. Ideas and knowledge - inputs as important as land and water - are not subject to scarcity, as work done by Nobel laureate Robert Solow and, more importantly, by Paul Romer, an economist from the University of California at Berkeley, clearly demonstrates. Additionally, it is useful to distinguish natural from synthetic resources.

The scarcity of most natural resources (a type of "external scarcity") is only theoretical at present. Granted, many resources are unevenly distributed and badly managed. But this is man-made ("internal") scarcity and can be undone by Man. It is truer to assume, for practical purposes, that most natural resources - when not egregiously abused and when freely priced - are infinite rather than scarce. The anthropologist Marshall Sahlins discovered that primitive peoples he has studied had no concept of "scarcity" - only of "satiety". He called them the first "affluent societies".

This is because, fortunately, the number of people on Earth is finite - and manageable - while most resources can either be replenished or substituted. Alarmist claims to the contrary by environmentalists have been convincingly debunked by the likes of Bjorn Lomborg, author of "The Skeptical Environmentalist".

Equally, it is true that manufactured goods, agricultural produce, money, and services are scarce. The number of industrialists, service providers, or farmers is limited - as is their life span. The quantities of raw materials, machinery and plant are constrained. Contrary to classic economic teaching, human wants are limited - only so many people exist at any given time and not all them desire everything all the time. But, even so, the demand for man-made goods and services far exceeds the supply.

Scarcity is the attribute of a "closed" economic universe. But it can be alleviated either by increasing the supply of goods and services (and human beings) - or by improving the efficiency of the allocation of economic resources. Technology and innovation are supposed to achieve the former - rational governance, free trade, and free markets the latter.

The telegraph, the telephone, electricity, the train, the car, the agricultural revolution, information technology and, now, biotechnology have all increased our resources, seemingly ex nihilo. This multiplication of wherewithal falsified all apocalyptic Malthusian scenarios hitherto. Operations research, mathematical modeling, transparent decision making, free trade, and professional management - help better allocate these increased resources to yield optimal results.

Markets are supposed to regulate scarcity by storing information about our wants and needs. Markets harmonize supply and demand. They do so through the price mechanism. Money is, thus, a unit of information and a conveyor or conduit of the price signal - as well as a store of value and a means of exchange.

Markets and scarcity are intimately related. The former would be rendered irrelevant and unnecessary in the absence of the latter. Assets increase in value in line with their scarcity - i.e., in line with either increasing demand or decreasing supply. When scarcity decreases - i.e., when demand drops or supply surges - asset prices collapse. When a resource is thought to be infinitely abundant (e.g., air) - its price is zero.

Armed with these simple and intuitive observations, we can now survey the dismal economic landscape.

The abolition of scarcity was a pillar of the paradigm shift to the "new economy". The marginal costs of producing and distributing intangible goods, such as intellectual property, are negligible. Returns increase - rather than decrease - with each additional copy. An original software retains its quality even if copied numerous times. The very distinction between "original" and "copy" becomes obsolete and meaningless. Knowledge products are "non-rival goods" (i.e., can be used by everyone simultaneously).

Such ease of replication gives rise to network effects and awards first movers with a monopolistic or oligopolistic position. Oligopolies are better placed to invest excess profits in expensive research and development in order to achieve product differentiation. Indeed, such firms justify charging money for their "new economy" products with the huge sunken costs they incur - the initial expenditures and investments in research and development, machine tools, plant, and branding.

To sum, though financial and human resources as well as content may have remained scarce - the quantity of intellectual property goods is potentially infinite because they are essentially cost-free to reproduce. Plummeting production costs also translate to enhanced productivity and wealth formation. It looked like a virtuous cycle.

But the abolition of scarcity implied the abolition of value. Value and scarcity are two sides of the same coin. Prices reflect scarcity. Abundant products are cheap. Infinitely abundant products - however useful - are complimentary. Consider money. Abundant money - an intangible commodity - leads to depreciation against other currencies and inflation at home. This is why central banks intentionally foster money scarcity.

But if intellectual property goods are so abundant and cost-free - why were distributors of intellectual property so valued, not least by investors in the stock exchange? Was it gullibility or ignorance of basic economic rules?

Not so. Even "new economists" admitted to temporary shortages and "bottlenecks" on the way to their utopian paradise of cost-free abundance. Demand always initially exceeds supply. Internet backbone capacity, software programmers, servers are all scarce to start with - in the old economy sense.

This scarcity accounts for the stratospheric erstwhile valuations of dotcoms and telecoms. Stock prices were driven by projected ever-growing demand and not by projected ever-growing supply of asymptotically-free goods and services. "The Economist" describes how WorldCom executives flaunted the cornucopian doubling of Internet traffic every 100 days. Telecoms predicted a tsunami of clients clamoring for G3 wireless Internet services. Electronic publishers gleefully foresaw the replacement of the print book with the much heralded e-book.

The irony is that the new economy self-destructed because most of its assumptions were spot on. The bottlenecks were, indeed, temporary. Technology, indeed, delivered near-cost-free products in endless quantities. Scarcity was, indeed, vanquished.

Per the same cost, the amount of information one can transfer through a single fiber optic swelled 100 times. Computer storage catapulted 80,000 times. Broadband and cable modems let computers communicate at 300 times their speed only 5 years ago. Scarcity turned to glut. Demand failed to catch up with supply. In the absence of

clear price signals - the outcomes of scarcity - the match between the two went awry.

One innovation the "new economy" has wrought is "inverse scarcity" - unlimited resources (or products) vs. limited wants. Asset exchanges the world over are now adjusting to this harrowing realization - that cost free goods are worth little in terms of revenues and that people are badly disposed to react to zero marginal costs.

The new economy caused a massive disorientation and dislocation of the market and the price mechanism. Hence the asset bubble. Reverting to an economy of scarcity is our only hope. If we don't do so deliberately - the markets will do it for us, mercilessly.

A Comment on "Manufactured Scarcity"

Conspiracy theorists have long alleged that manufacturers foster scarcity by building into their products mechanisms of programmed obsolescence and apopstosis (self-destruction). But scarcity is artificially manufactured in less obvious (and far less criminal) ways.

Technological advances, product revisions, new features, and novel editions render successive generations of products obsolete. Consumerism encourages owners to rid themselves of their possessions and replace them with newer, more gleaming, status-enhancing substitutes offered by design departments and engineering workshops worldwide. Cherished values of narcissistic competitiveness and malignant individualism play an important socio-cultural role in this semipternal game of musical chairs.

Many products have a limited shelf life or an expiry date (rarely supported by solid and rigorous research). They

are to be promptly disposed of and, presumably, instantaneously replaced with new ones.

Finally, manufacturers often knowingly produce scarcity by limiting their output or by restricting access to their goods. "Limited editions" of works of art and books are prime examples of this stratagem.

Science, Development of

"There was a time when the newspapers said that only twelve men understood the theory of relativity. I do not believe that there ever was such a time... On the other hand, I think it is safe to say that no one understands quantum mechanics... Do not keep saying to yourself, if you can possibly avoid it, 'But how can it be like that?', because you will get 'down the drain' into a blind alley from which nobody has yet escaped. Nobody knows how it can be like that."
R. P. Feynman (1967)

"The first processes, therefore, in the effectual studies of the sciences, must be ones of simplification and reduction of the results of previous investigations to a form in which the mind can grasp them."
J. C. Maxwell, On Faraday's lines of force

" ...conventional formulations of quantum theory, and of quantum field theory in particular, are unprofessionally vague and ambiguous. Professional theoretical physicists ought to be able to do better. Bohm has shown us a way."
John S. Bell, Speakable and Unspeakable in Quantum Mechanics

"It would seem that the theory [quantum mechanics] is

exclusively concerned about 'results of measurement', and has nothing to say about anything else. What exactly qualifies some physical systems to play the role of 'measurer'? Was the wavefunction of the world waiting to jump for thousands of millions of years until a single-celled living creature appeared? Or did it have to wait a little longer, for some better qualified system ... with a Ph.D.? If the theory is to apply to anything but highly idealized laboratory operations, are we not obliged to admit that more or less 'measurement-like' processes are going on more or less all the time, more or less everywhere. Do we not have jumping then all the time?

The first charge against 'measurement', in the fundamental axioms of quantum mechanics, is that it anchors the shifty split of the world into 'system' and 'apparatus'. A second charge is that the word comes loaded with meaning from everyday life, meaning which is entirely inappropriate in the quantum context. When it is said that something is 'measured' it is difficult not to think of the result as referring to some pre-existing property of the object in question. This is to disregard Bohr's insistence that in quantum phenomena the apparatus as well as the system is essentially involved. If it were not so, how could we understand, for example, that 'measurement' of a component of 'angular momentum' ... in an arbitrarily chosen direction ... yields one of a discrete set of values? When one forgets the role of the apparatus, as the word 'measurement' makes all too likely, one despairs of ordinary logic ... hence 'quantum logic'. When one remembers the role of the apparatus, ordinary logic is just fine.

In other contexts, physicists have been able to take

words from ordinary language and use them as technical terms with no great harm done. Take for example the 'strangeness', 'charm', and 'beauty' of elementary particle physics. No one is taken in by this 'baby talk'... Would that it were so with 'measurement'. But in fact the word has had such a damaging effect on the discussion, that I think it should now be banned altogether in quantum mechanics."
J. S. Bell, Against "Measurement"

"Is it not clear from the smallness of the scintillation on the screen that we have to do with a particle? And is it not clear, from the diffraction and interference patterns, that the motion of the particle is directed by a wave? De Broglie showed in detail how the motion of a particle, passing through just one of two holes in screen, could be influenced by waves propagating through both holes. And so influenced that the particle does not go where the waves cancel out, but is attracted to where they co-operate. This idea seems to me so natural and simple, to resolve the wave-particle dilemma in such a clear and ordinary way, that it is a great mystery to me that it was so generally ignored."
J. S. Bell, Speakable and Unspeakable in Quantum Mechanics

"...in physics the only observations we must consider are position observations, if only the positions of instrument pointers. It is a great merit of the de Broglie-Bohm picture to force us to consider this fact. If you make axioms, rather than definitions and theorems, about the "measurement" of anything else, then you commit redundancy and risk inconsistency."
J. S. Bell, Speakable and Unspeakable in Quantum Mechanics

"To outward appearance, the modern world was born of an anti religious movement: man becoming self-sufficient and reason supplanting belief. Our generation and the two that preceded it have heard little of but talk of the conflict between science and faith; indeed it seemed at one moment a foregone conclusion that the former was destined to take the place of the latter... After close on two centuries of passionate struggles, neither science nor faith has succeeded in discrediting its adversary.

On the contrary, it becomes obvious that neither can develop normally without the other. And the reason is simple: the same life animates both. Neither in its impetus nor its achievements can science go to its limits without becoming tinged with mysticism and charged with faith."

Pierre Thierry de Chardin, "The Phenomenon of Man"

I opened this appendix with lengthy quotations of John S. Bell, the main proponent of the Bohemian Mechanics interpretation of Quantum Mechanics (really, an alternative rather than an interpretation). The renowned physicist, David Bohm (in the 50s), basing himself on work done much earlier by de Broglie (the unwilling father of the wave-particle dualism), embedded the Schrödinger Equation (SE throughout this article) in a deterministic physical theory which postulated a non-Newtonian motion of particles. This is a fine example of the life cycle of scientific theories.

Witchcraft, Religion, Alchemy and Science succeeded one another and each such transition was characterized by transitional pathologies reminiscent of psychotic disorders. The exceptions are (arguably) medicine and biology. A phenomenology of ossified bodies of

knowledge would make a fascinating read. This is the end of the aforementioned life cycle: Growth, Pathology, Ossification.

This article identifies the current Ossification Phase of Science and suggests that it is soon to be succeeded by another discipline. It does so after studying and rejecting other explanations to the current state of science: that human knowledge is limited by its very nature, that the world is inherently incomprehensible, that methods of thought and understanding tend to self-organize to form closed mythic systems and that there is a problem of the language which we employ to make our inquiries of the world describable and communicable.

Kuhn's approach to Scientific Revolutions is but one of a series of approaches to issues of theory and paradigm shifts in scientific thought and its resulting evolution. Scientific theories seem to be subject to a process of natural selection as much as organisms are in nature.

Animals could be construed to be theorems (with a positive truth value) in the logical system "Nature". But species become extinct because nature itself changes (not nature as a set of potentials - but the relevant natural phenomena to which the species are exposed). Could we say the same about scientific theories? Are they being selected and deselected partly due to a changing, shifting backdrop?

Indeed, the whole debate between "realists" and "anti-realists" in the philosophy of Science can be thus settled, by adopting this single premise: that the Universe itself is not a fixture. By contrasting a fixed subject of the study ("The World") with the moving image of Science - anti-realists gained the upper hand.

Arguments such as the under-determination of theories by data and the pessimistic meta-inductions from past falsity (of scientific "knowledge") emphasized the transience and asymptotic nature of the fruits of the scientific endeavor. But all this rests on the implicit assumption that there is some universal, immutable, truth out there (which science strives to approximate). The apparent problem evaporates if we allow both the observer and the observed, the theory and its subject, the background, as well as the fleeting images, to be alterable.

Science develops through reduction of miracles. Laws of nature are formulated. They are assumed to encompass all the (relevant) natural phenomena (that is, phenomena governed by natural forces and within nature). Ex definitio, nothing can exist outside nature - it is all-inclusive and all-pervasive, omnipresent (formerly the attributes of the divine).

Supernatural forces, supernatural intervention - are a contradiction in terms, oxymorons. If it exists - it is natural. That which is supernatural - does not exist. Miracles do not only contravene (or violate) the laws of nature - they are impossible, not only physically, but also logically. That which is logically possible and can be experienced (observed), is physically possible. But, again, we confront the "fixed background" assumption. What if nature itself changes in a way to confound everlasting, ever-truer knowledge? Then, the very shift of nature as a whole, as a system, could be called "supernatural" or "miraculous".

In a small way, this is how science evolves. A law of nature is proposed. An event or occurs or observation made which are not described or predicted by it. It is, by definition, a violation of the law. The laws of nature are

modified, or re-written entirely, in order to reflect and encompass this extraordinary event. Hume's distinction between "extraordinary" and "miraculous" events is upheld (the latter being ruled out).

The extraordinary ones can be compared to our previous experience - the miraculous entail some supernatural interference with the normal course of things (a "wonder" in Biblical terms). It is through confronting the extraordinary and eliminating its abnormal nature that science progresses as a miraculous activity. This, of course, is not the view of the likes of David Deutsch (see his book, "The Fabric of Reality").

The last phase of this Life Cycle is Ossification. The discipline degenerates and, following the psychotic phase, it sinks into a paralytic stage which is characterized by the following:

All the practical and technological aspects of the discipline are preserved and continue to be utilized. Gradually the conceptual and theoretical underpinnings vanish or are replaced by the tenets and postulates of a new discipline - but the inventions, processes and practical know-how do not evaporate. They are incorporated into the new discipline and, in time, are erroneously attributed to it. This is a transfer of credit and the attribution of merit and benefits to the legitimate successor of the discipline.

The practitioners of the discipline confine themselves to copying and replicating the various aspects of the discipline, mainly its intellectual property (writings, inventions, other theoretical material). The replication process does not lead to the creation of new knowledge or even to the dissemination of old one. It is a hermetic

process, limited to the ever decreasing circle of the initiated. Special institutions are set up to rehash the materials related to the discipline, process them and copy them. These institutions are financed and supported by the State which is always an agent of conservation, preservation and conformity.

Thus, the creative-evolutionary dimension of the discipline freezes over. No new paradigms or revolutions happen. Interpretation and replication of canonical writings become the predominant activity. Formalisms are not subjected to scrutiny and laws assume eternal, immutable, quality.

All the activities of the adherents of the discipline become ritualized. The discipline itself becomes a pillar of the power structures and, as such, is commissioned and condoned by them. Its practitioners synergistically collaborate with them: with the industrial base, the military powerhouse, the political elite, the intellectual cliques in vogue. Institutionalization inevitably leads to the formation of a (mostly bureaucratic) hierarchy. Rituals serve two purposes. The first is to divert attention from subversive, "forbidden" thinking.

This is very much as is the case with obsessive-compulsive disorders in individuals who engage in ritualistic behavior patterns to deflect "wrong" or "corrupt" thoughts. And the second purpose is to cement the power of the "clergy" of the discipline. Rituals are a specialized form of knowledge which can be obtained only through initiation procedures and personal experience. One's status in the hierarchy is not the result of objectively quantifiable variables or even of judgment of merit. It is the result of politics and other power-related interactions. The cases of "Communist Genetics"

(Lysenko) versus "Capitalist Genetics" and of the superpower races (space race, arms race) come to mind.

Conformity, dogmatism, doctrines - all lead to enforcement mechanisms which are never subtle. Dissidents are subjected to sanctions: social sanctions and economic sanctions. They can find themselves ex-communicated, harassed, imprisoned, tortured, their works banished or not published, ridiculed and so on.

This is really the triumph of text over the human spirit. The members of the discipline's community forget the original reasons and causes for their scientific pursuits. Why was the discipline developed? What were the original riddles, questions, queries? How did it feel to be curious? Where is the burning fire and the glistening eyes and the feelings of unity with nature that were the prime moving forces behind the discipline? The cold ashes of the conflagration are the texts and their preservation is an expression of longing and desire for things past.

The vacuum left by the absence of positive emotions - is filled by negative ones. The discipline and its disciples become phobic, paranoid, defensive, with a blurred reality test. Devoid of new, attractive content, the discipline resorts to negative motivation by manipulation of negative emotions. People are frightened, threatened, herded, cajoled. The world without the discipline is painted in an apocalyptic palette as ruled by irrationality, disorderly, chaotic, dangerous, even lethally so.

New, emerging disciplines, are presented as heretic, fringe lunacies, inconsistent, reactionary and bound to lead humanity back to some dark ages. This is the inter-disciplinary or inter-paradigm clash. It follows the Psychotic Phase. The old discipline resorts to some

transcendental entity (God, Satan, the conscious intelligent observer in the Copenhagen interpretation of the formalism of Quantum Mechanics). In this sense, it is already psychotic and fails its reality test. It develops messianic aspirations and is inspired by a missionary zeal and zest. The fight against new ideas and theories is bloody and ruthless and every possible device is employed.

But the very characteristics of the older nomenclature is in its disfavor. It is closed, based on ritualistic initiation, patronizing. It relies on intimidation. The numbers of the faithful dwindles the more the "church" needs them and the more it resorts to oppressive recruitment tactics. The emerging knowledge wins by historical default and not due to the results of any fierce fight. Even the initiated desert. Their belief unravels when confronted with the truth value, explanatory and predictive powers, and the comprehensiveness of the emerging discipline.

This, indeed, is the main presenting symptom, distinguishing hallmark, of paralytic old disciplines. They deny reality. The are a belief-system, a myth, requiring suspension of judgment, the voluntary limitation of the quest, the agreement to leave swathes of the map in the state of a blank "terra incognita". This reductionism, this avoidance, their replacement by some transcendental authority are the beginning of an end.

Consider physics:

The Universe is a complex, orderly system. If it were an intelligent being, we would be compelled to say that it had "chosen" to preserve form (structure), order and complexity - and to increase them whenever and wherever it can. We can call this a natural inclination or a tendency

of the Universe.

This explains why evolution did not stop at the protozoa level. After all, these mono-cellular organisms were (and still are, hundreds of millions of years later) superbly adapted to their environment. It was Bergson who posed the question: why did nature prefer the risk of unstable complexity over predictable and reliable and durable simplicity?

The answer seems to be that the Universe has a predilection (not confined to the biological realm) to increase complexity and order and that this principle takes precedence over "utilitarian" calculations of stability. The battle between the entropic arrow and the negentropic one is more important than any other (in-built) "consideration". This is Time itself and Thermodynamics pitted against Man (as an integral part of the Universe), Order (a systemic, extensive parameter) against Disorder.

In this context, natural selection is no more "blind" or "random" than its subjects. It is discriminating, exercises discretion, encourages structure, complexity and order. The contrast that Bergson stipulated between Natural Selection and Élan Vitale is grossly misplaced: Natural Selection IS the vital power itself.

Modern Physics is converging with Philosophy (possibly with the philosophical side of Religion as well) and the convergence is precisely where concepts of Order and disorder emerge. String theories, for instance, come in numerous versions which describe many possible different worlds. Granted, they may all be facets of the same Being (distant echoes of the new versions of the Many Worlds Interpretation of Quantum Mechanics).

Still, why do we, intelligent conscious observers, see (=why are we exposed to) only one aspect of the Universe? How is this aspect "selected"? The Universe is constrained in this "selection process" by its own history - but history is not synonymous with the Laws of Nature. The latter determine the former - does the former also determine the latter? In other words: were the Laws of Nature "selected" as well and, if so, how?

The answer seems self evident: the Universe "selected" both the Natural Laws and - as a result - its own history. The selection process was based on the principle of Natural Selection. A filter was applied: whatever increased order, complexity, structure - survived. Indeed, our very survival as a species is still largely dependent upon these things. Our Universe - having survived - must be an optimized Universe.

Only order-increasing Universes do not succumb to entropy and death (the weak hypothesis). It could even be argued (as we do here) that our Universe is the only possible kind of Universe (the semi-strong hypothesis) or even the only Universe (the strong hypothesis). This is the essence of the Anthropic Principle.

By definition, universal rules pervade all the realms of existence. Biological systems must obey the same order-increasing (natural) laws as physical ones and social ones. We are part of the Universe in the sense that we are subject to the same discipline and adhere to the same "religion". We are an inevitable result - not a chance happening.

We are the culmination of orderly processes - not the outcome of random events. The Universe enables us and our world because - and only for as long as - we increase

order. That is not to imply that there is an intention to do so on the part of the Universe (or a "higher being" or a "higher power"). There is no conscious or God-like spirit. There is no religious assertion. We only say that a system that has Order as its founding principle will tend to favor order, to breed it, to positively select its proponents and deselect its opponents - and, finally, to give birth to more and more sophisticated weapons in the pro-Order arsenal. We, humans, were such an order-increasing weapon until recently.

These intuitive assertions can be easily converted into a formalism. In Quantum Mechanics, the State Vector can be constrained to collapse to the most Order-enhancing event. If we had a computer the size of the Universe that could infallibly model it - we would have been able to predict which event will increase the order in the Universe overall. No collapse would have been required then and no probabilistic calculations.

It is easy to prove that events will follow a path of maximum order, simply because the world is orderly and getting ever more so. Had this not been the case, evenly statistically scattered event would have led to an increase in entropy (thermodynamic laws are the offspring of statistical mechanics). But this simply does not happen. And it is wrong to think that order increases only in isolated "pockets", in local regions of our universe.

It is increasing everywhere, all the time, on all scales of measurement. Therefore, we are forced to conclude that quantum events are guided by some non-random principle (such as the increase in order). This, exactly, is the case in biology. There is no reason why not to construct a life wavefunction which will always collapse to the most order increasing event. If we construct and apply this

wave function to our world - we will probably find ourselves as one of the events after its collapse.

Self

The fundament of our mind is the mental map we create of our body ("Body Image", or "Body Map"). It is a detailed, psychic, rendition of our corporeal self, based on sensa (sensory input) and above all on proprioception and other kinaesthetic senses. It incorporates representations of other objects and results, at a higher level, in a "World Map" or "World Image". This World Map often does not react to actual changes in the body itself (such as amputation - the "phantom" phenomenon). It is also exclusionary of facts that contradict the paradigm at the basis of the World Map.

This detailed and ever-changing (dynamic) map constitutes the set of outer constraints and threshold conditions for the brain's operations. The triple processes of interaction (endogenous and exogenous), integration (assimilation) and accommodation (see here "Psychophysics") - reconcile the brain's "programmes" (sets of instructions) to these constraints and conditions. In other words, these are processes of solving dynamic, though always partial, equations. The set of all the solutions to all these equations constitutes the "Personal Narrative", or "Personality". Thus, "organic" and "mental" disorders (a dubious distinction at best) have many characteristics in common (confabulation, antisocial behaviour, emotional absence or flatness, indifference, psychotic episodes and so on).

The brain's "Functional Set" is hierarchical and consists of feedback loops. It aspires to equilibrium and homeostasis. The most basic level is mechanical - hardware (neurones,

glia, etc.) and operating system software. This software consists of a group of sensory-motor applications. It is separated from the next level by exegetic instructions (the feedback loops and their interpretation). This is the cerebral equivalent of a compiler. Each level of instructions is separated from the next (and connected to it meaningfully and operationally) by such a compiler.

Next follow the "functional instructions" ("How to" type of commands): how to see, how to place visuals in context, how to hear, how to collate and correlate sensory input and so on. Yet, these commands should not be confused with the "real thing", the "final product". "How-to-see" is NOT "seeing". Seeing is a much more complex, multilayered, interactive and versatile "activity" than the simple act of light penetration and its conveyance to the brain.

Thus - separated by another compiler which generates meanings (a "dictionary") - we reach the realm of "meta-instructions". This is a gigantic classificatory (taxonomic) system. It contains and applies rules of symmetry (left vs. right), physics (light vs. dark, colours), social codes (face recognition, behaviour) and synergetic or correlated activity ("seeing", "music", etc.).

Design principles would yield the application of the following principles:

1. Areas of specialization (dedicated to hearing, reading, smelling, etc.);

2. Redundancy (unutilized over capacity);

3. Holography and Fractalness (replication of same mechanisms, sets of instructions and some critical content in various locations in the brain);

4. Interchangeability - Higher functions can replace damaged lower ones (seeing can replace damaged proprioception, for instance).

5. Two types of processes:

    a. Rational - discrete, atomistic, syllogistic, theory-constructing, falsifying;

    b. Emotional - continuous, fractal, holographic.

By "fractal and holographic", we mean:

1. That each part contains the total information about the whole;

2. That each unit or part contain a "connector" to all others with sufficient information in such a connector to reconstruct the other units if lost or unavailable.

Only some brain processes are "conscious". Others, though equally complex (e.g., semantic interpretation of spoken texts), may be unconscious. The same brain processes can be conscious at one time and unconscious at another. Consciousness, in other words, is the privileged tip of a submerged mental iceberg.

One hypothesis is that an uncounted number of unconscious processes "yield" conscious processes. This is the emergent phenomenal (epiphenomenal) "wave-particle" duality. Unconscious brain processes are like a wave function which collapses into the "particle" of consciousness.

Another hypothesis, more closely aligned with tests and

experiments, is that consciousness is like a searchlight. It focuses on a few "privileged processes" at a time and thus makes them conscious. As the light of consciousness moves on, new privileged processes (hitherto unconscious) become conscious and the old ones recede into unconsciousness.

Sense and Sensa

"Anthropologists report enormous differences in the ways that different cultures categorize emotions. Some languages, in fact, do not even have a word for emotion. Other languages differ in the number of words they have to name emotions. While English has over 2,000 words to describe emotional categories, there are only 750 such descriptive words in Taiwanese Chinese. One tribal language has only 7 words that could be translated into categories of emotion… the words used to name or describe an emotion can influence what emotion is experienced. For example, Tahitians do not have a word directly equivalent to sadness. Instead, they treat sadness as something like a physical illness. This difference has an impact on how the emotion is experienced by Tahitians. For example, the sadness we feel over the departure of a close friend would be experienced by a Tahitian as exhaustion. Some cultures lack words for anxiety or depression or guilt. Samoans have one word encompassing love, sympathy, pity, and liking – which are very different emotions in our own culture."

"Psychology – An Introduction" Ninth Edition By: Charles G. Morris, University of Michigan Prentice Hall, 1996

Introduction

This essay is divided in two parts. In the first, we survey the landscape of the discourse regarding emotions in general and sensations in particular. This part will be familiar to any student of philosophy and can be skipped by same. The second part contains an attempt at producing an integrative overview of the matter, whether successful or not is best left to the reader to judge.

A. **Survey**

Words have the power to express the speaker's emotions and to evoke emotions (whether the same or not remains disputed) in the listener. Words, therefore, possess emotive meaning together with their descriptive meaning (the latter plays a cognitive role in forming beliefs and understanding).

Our moral judgements and the responses deriving thereof have a strong emotional streak, an emotional aspect and an emotive element. Whether the emotive part predominates as the basis of appraisal is again debatable. Reason analyzes a situation and prescribes alternatives for action. But it is considered to be static, inert, not goal-oriented (one is almost tempted to say: non-teleological - see: "Legitimizing Final Causes"). The equally necessary dynamic, action-inducing component is thought, for some oblivious reason, to belong to the emotional realm. Thus, the language (=words) used to express moral judgement supposedly actually express the speaker's emotions. Through the aforementioned mechanism of emotive meaning, similar emotions are evoked in the hearer and he is moved to action.

A distinction should be – and has been – drawn between regarding moral judgement as merely a report pertaining to the subject's inner emotional world – and regarding it

wholly as an emotive reaction. In the first case, the whole notion (really, the phenomenon) of moral disagreement is rendered incomprehensible. How could one disagree with a report? In the second case, moral judgement is reduced to the status of an exclamation, a non-propositional expression of "emotive tension", a mental excretion. This absurd was nicknamed: "The Boo-Hoorah Theory".

There were those who maintained that the whole issue was the result of mislabeling. Emotions are really what we otherwise call attitudes, they claimed. We approve or disapprove of something, therefore, we "feel". Prescriptivist accounts displaced emotivist analyses. This instrumentalism did not prove more helpful than its purist predecessors.

Throughout this scholarly debate, philosophers did what they are best at: ignored reality. Moral judgements – every child knows – are not explosive or implosive events, with shattered and scattered emotions strewn all over the battlefield. Logic is definitely involved and so are responses to already analyzed moral properties and circumstances. Moreover, emotions themselves are judged morally (as right or wrong). If a moral judgement were really an emotion, we would need to stipulate the existence of an hyper-emotion to account for the moral judgement of our emotions and, in all likelihood, will find ourselves infinitely regressing. If moral judgement is a report or an exclamation, how are we able to distinguish it from mere rhetoric? How are we able to intelligibly account for the formation of moral standpoints by moral agents in response to an unprecedented moral challenge?

Moral realists criticize these largely superfluous and artificial dichotomies (reason versus feeling, belief versus desire, emotivism and noncognitivism versus realism).

The debate has old roots. Feeling Theories, such as Descartes', regarded emotions as a mental item, which requires no definition or classification. One could not fail to fully grasp it upon having it. This entailed the introduction of introspection as the only way to access our feelings. Introspection not in the limited sense of "awareness of one's mental states" but in the broader sense of "being able to internally ascertain mental states". It almost became material: a "mental eye", a "brain-scan", at the least a kind of perception. Others denied its similarity to sensual perception. They preferred to treat introspection as a modus of memory, recollection through retrospection, as an internal way of ascertaining (past) mental events. This approach relied on the impossibility of having a thought simultaneously with another thought whose subject was the first thought. All these lexicographic storms did not serve either to elucidate the complex issue of introspection or to solve the critical questions: How can we be sure that what we "introspect" is not false? If accessible only to introspection, how do we learn to speak of emotions uniformly? How do we (unreflectively) assume knowledge of other people's emotions? How come we are sometimes forced to "unearth" or deduce our own emotions? How is it possible to mistake our emotions (to have one without actually feeling it)? Are all these failures of the machinery of introspection?

The proto-psychologists James and Lange have (separately) proposed that emotions are the experiencing of physical responses to external stimuli. They are mental representations of totally corporeal reactions. Sadness is what we call the feeling of crying. This was phenomenological materialism at its worst. To have full-blown emotions (not merely detached observations), one needed to experience palpable bodily symptoms. The

James-Lange Theory apparently did not believe that a quadriplegic can have emotions, since he definitely experiences no bodily sensations. Sensationalism, another form of fanatic empiricism, stated that all our knowledge derived from sensations or sense data. There is no clear answer to the question how do these sensa (=sense data) get coupled with interpretations or judgements. Kant postulated the existence of a "manifold of sense" – the data supplied to the mind through sensation. In the "Critique of Pure Reason" he claimed that these data were presented to the mind in accordance with its already preconceived forms (sensibilities, like space and time). But to experience means to unify these data, to cohere them somehow. Even Kant admitted that this is brought about by the synthetic activity of "imagination", as guided by "understanding". Not only was this a deviation from materialism (what material is "imagination" made of?) – it was also not very instructive.

The problem was partly a problem of communication. Emotions are qualia, qualities as they appear to our consciousness. In many respects they are like sense data (which brought about the aforementioned confusion). But, as opposed to sensa, which are particular, qualia are universal. They are subjective qualities of our conscious experience. It is impossible to ascertain or to analyze the subjective components of phenomena in physical, objective terms, communicable and understandable by all rational individuals, independent of their sensory equipment. The subjective dimension is comprehensible only to conscious beings of a certain type (=with the right sensory faculties). The problems of "absent qualia" (can a zombie/a machine pass for a human being despite the fact that it has no experiences) and of "inverted qualia" (what we both call "red" might have been called "green" by you

if you had my internal experience when seeing what we call "red") – are irrelevant to this more limited discussion. These problems belong to the realm of "private language". Wittgenstein demonstrated that a language cannot contain elements which it would be logically impossible for anyone but its speaker to learn or understand. Therefore, it cannot have elements (words) whose meaning is the result of representing objects accessible only to the speaker (for instance, his emotions). One can use a language either correctly or incorrectly. The speaker must have at his disposal a decision procedure, which will allow him to decide whether his usage is correct or not. This is not possible with a private language, because it cannot be compared to anything.

In any case, the bodily upset theories propagated by James et al. did not account for lasting or dispositional emotions, where no external stimulus occurred or persisted. They could not explain on what grounds do we judge emotions as appropriate or perverse, justified or not, rational or irrational, realistic or fantastic. If emotions were nothing but involuntary reactions, contingent upon external events, devoid of context – then how come we perceive drug induced anxiety, or intestinal spasms in a detached way, not as we do emotions? Putting the emphasis on sorts of behavior (as the behaviorists do) shifts the focus to the public, shared aspect of emotions but miserably fails to account for their private, pronounced, dimension. It is possible, after all, to experience emotions without expressing them (=without behaving). Additionally, the repertory of emotions available to us is much larger than the repertory of behaviours. Emotions are subtler than actions and cannot be fully conveyed by them. We find even human language an inadequate conduit for these complex phenomena.

To say that emotions are cognitions is to say nothing. We understand cognition even less than we understand emotions (with the exception of the mechanics of cognition). To say that emotions are caused by cognitions or cause cognitions (emotivism) or are part of a motivational process – does not answer the question: "What are emotions?". Emotions do cause us to apprehend and perceive things in a certain way and even to act accordingly. But WHAT are emotions? Granted, there are strong, perhaps necessary, connections between emotions and knowledge and, in this respect, emotions are ways of perceiving the world and interacting with it. Perhaps emotions are even rational strategies of adaptation and survival and not stochastic, isolated inter-psychic events. Perhaps Plato was wrong in saying that emotions conflict with reason and thus obscure the right way of apprehending reality. Perhaps he is right: fears do become phobias, emotions do depend on one's experience and character. As we have it in psychoanalysis, emotions may be reactions to the unconscious rather than to the world. Yet, again, Sartre may be right in saying that emotions are a "modus vivendi", the way we "live" the world, our perceptions coupled with our bodily reactions. He wrote: "(we live the world) as though the relations between things were governed not by deterministic processes but by magic". Even a rationally grounded emotion (fear which generates flight from a source of danger) is really a magical transformation (the ersatz elimination of that source). Emotions sometimes mislead. People may perceive the same, analyze the same, evaluate the situation the same, respond along the same vein – and yet have different emotional reactions. It does not seem necessary (even if it were sufficient) to postulate the existence of "preferred" cognitions – those that enjoy an "overcoat" of emotions. Either all cognitions generate

emotions, or none does. But, again, WHAT are emotions?

We all possess some kind of sense awareness, a perception of objects and states of things by sensual means. Even a dumb, deaf and blind person still possesses proprioception (perceiving the position and motion of one's limbs). Sense awareness does not include introspection because the subject of introspection is supposed to be mental, unreal, states. Still, if mental states are a misnomer and really we are dealing with internal, physiological, states, then introspection should form an important part of sense awareness. Specialized organs mediate the impact of external objects upon our senses and distinctive types of experience arise as a result of this mediation.

Perception is thought to be comprised of the sensory phase – its subjective aspect – and of the conceptual phase. Clearly sensations come before thoughts or beliefs are formed. Suffice it to observe children and animals to be convinced that a sentient being does not necessarily have to have beliefs. One can employ the sense modalities or even have sensory-like phenomena (hunger, thirst, pain, sexual arousal) and, in parallel, engage in introspection because all these have an introspective dimension. It is inevitable: sensations are about how objects feel like, sound, smell and seen to us. The sensations "belong", in one sense, to the objects with which they are identified. But in a deeper, more fundamental sense, they have intrinsic, introspective qualities. This is how we are able to tell them apart. The difference between sensations and propositional attitudes is thus made very clear. Thoughts, beliefs, judgements and knowledge differ only with respect to their content (the proposition believed/judged/known, etc.) and not in their intrinsic quality or feel. Sensations are exactly the opposite:

differently felt sensations may relate to the same content. Thoughts can also be classified in terms of intentionality (they are "about" something) – sensations only in terms of their intrinsic character. They are, therefore, distinct from discursive events (such as reasoning, knowing, thinking, or remembering) and do not depend upon the subject's intellectual endowments (like his power to conceptualize). In this sense, they are mentally "primitive" and probably take place at a level of the psyche where reason and thought have no recourse.

The epistemological status of sensations is much less clear. When we see an object, are we aware of a "visual sensation" in addition to being aware of the object? Perhaps we are only aware of the sensation, wherefrom we infer the existence of an object, or otherwise construct it mentally, indirectly? This is what, the Representative Theory tries to persuade us, the brain does upon encountering the visual stimuli emanating from a real, external object. The Naive Realists say that one is only aware of the external object and that it is the sensation that we infer. This is a less tenable theory because it fails to explain how do we directly know the character of the pertinent sensation.

What is indisputable is that sensation is either an experience or a faculty of having experiences. In the first case, we have to introduce the idea of sense data (the objects of the experience) as distinct from the sensation (the experience itself). But isn't this separation artificial at best? Can sense data exist without sensation? Is "sensation" a mere structure of the language, an internal accusative? Is "to have a sensation" equivalent to "to strike a blow" (as some dictionaries of philosophy have it)? Moreover, sensations must be had by subjects. Are

sensations objects? Are they properties of the subjects that have them? Must they intrude upon the subject's consciousness in order to exist – or can they exist in the "psychic background" (for instance, when the subject is distracted)? Are they mere representations of real events (is pain a representation of injury)? Are they located? We know of sensations when no external object can be correlated with them or when we deal with the obscure, the diffuse, or the general. Some sensations relate to specific instances – others to kinds of experiences. So, in theory, the same sensation can be experienced by several people. It would be the same KIND of experience – though, of course, different instances of it. Finally, there are the "oddball" sensations, which are neither entirely bodily – nor entirely mental. The sensations of being watched or followed are two examples of sensations with both components clearly intertwined.

Feeling is a "hyper-concept" which is made of both sensation and emotion. It describes the ways in which we experience both our world and our selves. It coincides with sensations whenever it has a bodily component. But it is sufficiently flexible to cover emotions and attitudes or opinions. But attaching names to phenomena never helped in the long run and in the really important matter of understanding them. To identify feelings, let alone to describe them, is not an easy task. It is difficult to distinguish among feelings without resorting to a detailed description of causes, inclinations and dispositions. In addition, the relationship between feeling and emotions is far from clear or well established. Can we emote without feeling? Can we explain emotions, consciousness, even simple pleasure in terms of feeling? Is feeling a practical method, can it be used to learn about the world, or about other people? How do we know about our own feelings?

Instead of throwing light on the subject, the dual concepts of feeling and sensation seem to confound matters even further. A more basic level needs to be broached, that of sense data (or sensa, as in this text).

Sense data are entities cyclically defined. Their existence depends upon being sensed by a sensor equipped with senses. Yet, they define the senses to a large extent (imagine trying to define the sense of vision without visuals). Ostensibly, they are entities, though subjective. Allegedly, they possess the properties that we perceive in an external object (if it is there), as it appears to have them. In other words, though the external object is perceived, what we really get in touch with directly, what we apprehend without mediation – are the subjective sensa. What is (probably) perceived is merely inferred from the sense data. In short, all our empirical knowledge rests upon our acquaintance with sensa. Every perception has as its basis pure experience. But the same can be said about memory, imagination, dreams, hallucinations. Sensation, as opposed to these, is supposed to be error free, not subject to filtering or to interpretation, special, infallible, direct and immediate. It is an awareness of the existence of entities: objects, ideas, impressions, perceptions, even other sensations. Russell and Moore said that sense data have all (and only) the properties that they appear to have and can only be sensed by one subject. But these all are idealistic renditions of senses, sensations and sensa. In practice, it is notoriously difficult to reach a consensus regarding the description of sense data or to base any meaningful (let alone useful) knowledge of the physical world on them. There is a great variance in the conception of sensa. Berkeley, ever the incorrigible practical Briton, said that sense data exist only if and when sensed or perceived by us. Nay, their

very existence IS their being perceived or sensed by us. Some sensa are public or part of lager assemblages of sensa. Their interaction with the other sensa, parts of objects, or surfaces of objects may distort the inventory of their properties. They may seem to lack properties that they do possess or to possess properties that can be discovered only upon close inspection (not immediately evident). Some sense data are intrinsically vague. What is a striped pajama? How many stripes does it contain? We do not know. It is sufficient to note (=to visually sense) that it has stripes all over. Some philosophers say that if a sense data can be sensed then they possibly exist. These sensa are called the sensibilia (plural of sensibile). Even when not actually perceived or sensed, objects consist of sensibilia. This makes sense data hard to differentiate. They overlap and where one begins may be the end of another. Nor is it possible to say if sensa are changeable because we do not really know WHAT they are (objects, substances, entities, qualities, events?).

Other philosophers suggested that sensing is an act directed at the objects called sense data. Other hotly dispute this artificial separation. To see red is simply to see in a certain manner, that is: to see redly. This is the adverbial school. It is close to the contention that sense data are nothing but a linguistic convenience, a noun, which enables us to discuss appearances. For instance, the "Gray" sense data is nothing but a mixture of red and sodium. Yet we use this convention (gray) for convenience and efficacy's sakes.

B. **The Evidence**

An important facet of emotions is that they can generate and direct behaviour. They can trigger complex chains of actions, not always beneficial to the individual. Yerkes

and Dodson observed that the more complex a task is, the more emotional arousal interferes with performance. In other words, emotions can motivate. If this were their only function, we might have determined that emotions are a sub-category of motivations.

Some cultures do not have a word for emotion. Others equate emotions with physical sensations, a-la James-Lange, who said that external stimuli cause bodily changes which result in emotions (or are interpreted as such by the person affected). Cannon and Bard differed only in saying that both emotions and bodily responses were simultaneous. An even more far-fetched approach (Cognitive Theories) was that situations in our environment foster in us a GENERAL state of arousal. We receive clues from the environment as to what we should call this general state. For instance, it was demonstrated that facial expressions can induce emotions, apart from any cognition.

A big part of the problem is that there is no accurate way to verbally communicate emotions. People are either unaware of their feelings or try to falsify their magnitude (minimize or exaggerate them). Facial expressions seem to be both inborn and universal. Children born deaf and blind use them. They must be serving some adaptive survival strategy or function. Darwin said that emotions have an evolutionary history and can be traced across cultures as part of our biological heritage. Maybe so. But the bodily vocabulary is not flexible enough to capture the full range of emotional subtleties humans are capable of. Another nonverbal mode of communication is known as body language: the way we move, the distance we maintain from others (personal or private territory). It expresses emotions, though only very crass and raw ones.

And there is overt behaviour. It is determined by culture, upbringing, personal inclination, temperament and so on. For instance: women are more likely to express emotions than men when they encounter a person in distress. Both sexes, however, experience the same level of physiological arousal in such an encounter. Men and women also label their emotions differently. What men call anger – women call hurt or sadness. Men are four times more likely than women to resort to violence. Women more often than not will internalize aggression and become depressed.

Efforts at reconciling all these data were made in the early eighties. It was hypothesized that the interpretation of emotional states is a two phased process. People respond to emotional arousal by quickly "surveying" and "appraising" (introspectively) their feelings. Then they proceed to search for environmental cues to support the results of their assessment. They will, thus, tend to pay more attention to internal cues that agree with the external ones. Put more plainly: people will feel what they expect to feel.

Several psychologists have shown that feelings precede cognition in infants. Animals also probably react before thinking. Does this mean that the affective system reacts instantaneously, without any of the appraisal and survey processes that were postulated? If this were the case, then we merely play with words: we invent explanations to label our feelings AFTER we fully experience them. Emotions, therefore, can be had without any cognitive intervention. They provoke unlearned bodily patterns, such as the aforementioned facial expressions and body language. This vocabulary of expressions and postures is not even conscious. When information about these

reactions reaches the brain, it assigns to them the appropriate emotion. Thus, affect creates emotion and not vice versa.

Sometimes, we hide our emotions in order to preserve our self-image or not to incur society's wrath. Sometimes, we are not aware of our emotions and, as a result, deny or diminish them.

C. **An Integrative Platform – A Proposal**

(The terminology used in this chapter is explored in the previous ones.)

The use of one word to denote a whole process was the source of misunderstandings and futile disputations. Emotions (feelings) are processes, not events, or objects. Throughout this chapter, I will, therefore, use the term "Emotive Cycle".

The genesis of the Emotive Cycle lies in the acquisition of Emotional Data. In most cases, these are made up of Sense Data mixed with data related to spontaneous internal events. Even when no access to sensa is available, the stream of internally generated data is never interrupted. This is easily demonstrated in experiments involving sensory deprivation or with people who are naturally sensorily deprived (blind, deaf and dumb, for instance). The spontaneous generation of internal data and the emotional reactions to them are always there even in these extreme conditions. It is true that, even under severe sensory deprivation, the emoting person reconstructs or evokes past sensory data. A case of pure, total, and permanent sensory deprivation is nigh impossible. But there are important philosophical and psychological differences between real life sense data and their

representations in the mind. Only in grave pathologies is this distinction blurred: in psychotic states, when experiencing phantom pains following the amputation of a limb or in the case of drug induced images and after images. Auditory, visual, olfactory and other hallucinations are breakdowns of normal functioning. Normally, people are well aware of and strongly maintain the difference between objective, external, sense data and the internally generated representations of past sense data.

The Emotional Data are perceived by the emoter as stimuli. The external, objective component has to be compared to internally maintained databases of previous such stimuli. The internally generated, spontaneous or associative data, have to be reflected upon. Both needs lead to introspective (inwardly directed) activity. The product of introspection is the formation of qualia. This whole process is unconscious or subconscious.

If the person is subject to functioning psychological defense mechanisms (e.g., repression, suppression, denial, projection, projective identification) – qualia formation will be followed by immediate action. The subject – not having had any conscious experience – will not be aware of any connection between his actions and preceding events (sense data, internal data and the introspective phase). He will be at a loss to explain his behaviour, because the whole process did not go through his consciousness. To further strengthen this argument, we may recall that hypnotized and anaesthetized subjects are not likely to act at all even in the presence of external, objective, sensa. Hypnotized people are likely to react to sensa introduced to their consciousness by the hypnotist and which had no existence, whether internal or external, prior to the hypnotist's suggestion. It seems that feeling,

sensation and emoting exist only if they pass through consciousness. This is true even where no data of any kind are available (such as in the case of phantom pains in long amputated limbs). But such bypasses of consciousness are the less common cases.

More commonly, qualia formation will be followed by Feeling and Sensation. These will be fully conscious. They will lead to the triple processes of surveying, appraisal/evaluation and judgment formation. When repeated often enough judgments of similar data coalesce to form attitudes and opinions. The patterns of interactions of opinions and attitudes with our thoughts (cognition) and knowledge, within our conscious and unconscious strata, give rise to what we call our personality. These patterns are relatively rigid and are rarely influenced by the outside world. When maladaptive and dysfunctional, we talk about personality disorders.

Judgements contain, therefore strong emotional, cognitive and attitudinal elements which team up to create motivation. The latter leads to action, which both completes one emotional cycle and starts another. Actions are sense data and motivations are internal data, which together form a new chunk of emotional data.

Emotional cycles can be divided to Phrastic nuclei and Neustic clouds (to borrow a metaphor from physics). The Phrastic Nucleus is the content of the emotion, its subject matter. It incorporates the phases of introspection, feeling/sensation, and judgment formation. The Neustic cloud involves the ends of the cycle, which interface with the world: the emotional data, on the one hand and the resulting action on the other.

We started by saying that the Emotional Cycle is set in

motion by Emotional Data, which, in turn, are comprised of sense data and internally generated data. But the composition of the Emotional Data is of prime importance in determining the nature of the resulting emotion and of the following action. If more sense data (than internal data) are involved and the component of internal data is weak in comparison (it is never absent) – we are likely to experience Transitive Emotions. The latter are emotions, which involve observation and revolve around objects. In short: these are "out-going" emotions, that motivate us to act to change our environment.

Yet, if the emotional cycle is set in motion by Emotional Data, which are composed mainly of internal, spontaneously generated data – we will end up with Reflexive Emotions. These are emotions that involve reflection and revolve around the self (for instance, autoerotic emotions). It is here that the source of psychopathologies should be sought: in this imbalance between external, objective, sense data and the echoes of our mind.

SETI (Search for Extraterrestrial Intelligence)

I. Introduction

The various projects that comprise the 45-years old Search for Extraterrestrial Intelligence (SETI) raise two important issues: (1) do Aliens exist and (2) can we communicate with them. If they do and we can, how come we never encountered an extraterrestrial, let alone spoken to or corresponded with one?

There are six basic explanations to this apparent conundrum and they are not mutually exclusive:

(1) That Aliens do not exist;

(2) That the technology they use is far too advanced to be detected by us and, the flip side of this hypothesis, that the technology we us is insufficiently advanced to be noticed by them;

(3) That we are looking for extraterrestrials at the wrong places;

(4) That the Aliens are life forms so different to us that we fail to recognize them as sentient beings or to communicate with them;

(5) That Aliens are trying to communicate with us but constantly fail due to a variety of hindrances, some structural and some circumstantial;

(6) That they are avoiding us because of our misconduct (example: the alleged destruction of the environment) or because of our traits (for instance, our innate belligerence).

Before we proceed to tackle these arguments, we need to consider two crucial issues:

(1) How can we tell the artificial from the natural? How can we be sure to distinguish Alien artifacts from naturally-occurring objects? How can we tell apart with certainty Alien languages from random noise or other natural signals?

(2) If we have absolutely nothing in common with the Aliens, can we still recognize them as intelligent life forms and maintain an exchange of meaningful information with them?

To read the two essays about Artificial vs. Natural and Intersubjectivity and Communication - scroll down.

To skip these two essays and head straight for the analysis of the six arguments against SETI - click HERE.

II. Artificial vs. Natural

"Everything is simpler than you think and at the same time more complex than you imagine."
(Johann Wolfgang von Goethe)

Complexity rises spontaneously in nature through processes such as self-organization. Emergent phenomena are common as are emergent traits, not reducible to basic components, interactions, or properties.

Complexity does not, therefore, imply the existence of a designer or a design. Complexity does not imply the existence of intelligence and sentient beings. On the contrary, complexity usually points towards a natural source and a random origin. Complexity and artificiality are often incompatible.

Artificial designs and objects are found only in unexpected ("unnatural") contexts and environments. Natural objects are totally predictable and expected. Artificial creations are efficient and, therefore, simple and parsimonious. Natural objects and processes are not.

As Seth Shostak notes in his excellent essay, titled "SETI and Intelligent Design", evolution experiments with numerous dead ends before it yields a single adapted biological entity. DNA is far from optimized: it contains inordinate amounts of junk. Our bodies come replete with dysfunctional appendages and redundant organs. Lightning bolts emit energy all over the electromagnetic

spectrum. Pulsars and interstellar gas clouds spew radiation over the entire radio spectrum. The energy of the Sun is ubiquitous over the entire optical and thermal range. No intelligent engineer - human or not - would be so wasteful.

Confusing artificiality with complexity is not the only terminological conundrum.

Complexity and simplicity are often, and intuitively, regarded as two extremes of the same continuum, or spectrum. Yet, this may be a simplistic view, indeed.

Simple procedures (codes, programs), in nature as well as in computing, often yield the most complex results. Where does the complexity reside, if not in the simple program that created it? A minimal number of primitive interactions occur in a primordial soup and, presto, life. Was life somehow embedded in the primordial soup all along? Or in the interactions? Or in the combination of substrate and interactions?

Complex processes yield simple products (think about products of thinking such as a newspaper article, or a poem, or manufactured goods such as a sewing thread). What happened to the complexity? Was it somehow reduced, "absorbed, digested, or assimilated"? Is it a general rule that, given sufficient time and resources, the simple can become complex and the complex reduced to the simple? Is it only a matter of computation?

We can resolve these apparent contradictions by closely examining the categories we use.

Perhaps simplicity and complexity are categorical illusions, the outcomes of limitations inherent in our system of symbols (in our language).

We label something "complex" when we use a great number of symbols to describe it. But, surely, the choices we make (regarding the number of symbols we use) teach us nothing about complexity, a real phenomenon!

A straight line can be described with three symbols (A, B, and the distance between them) - or with three billion symbols (a subset of the discrete points which make up the line and their inter-relatedness, their function). But whatever the number of symbols we choose to employ, however complex our level of description, it has nothing to do with the straight line or with its "real world" traits. The straight line is not rendered more (or less) complex or orderly by our choice of level of (meta) description and language elements.

The simple (and ordered) can be regarded as the tip of the complexity iceberg, or as part of a complex, interconnected whole, or hologramically, as encompassing the complex (the same way all particles are contained in all other particles). Still, these models merely reflect choices of descriptive language, with no bearing on reality.

Perhaps complexity and simplicity are not related at all, either quantitatively, or qualitatively. Perhaps complexity is not simply more simplicity. Perhaps there is no organizational principle tying them to one another. Complexity is often an emergent phenomenon, not reducible to simplicity.

The third possibility is that somehow, perhaps through human intervention, complexity yields simplicity and simplicity yields complexity (via pattern identification, the application of rules, classification, and other human pursuits). This dependence on human input would explain

the convergence of the behaviors of all complex systems on to a tiny sliver of the state (or phase) space (sort of a mega attractor basin). According to this view, Man is the creator of simplicity and complexity alike but they do have a real and independent existence thereafter (the Copenhagen interpretation of a Quantum Mechanics).

Still, these twin notions of simplicity and complexity give rise to numerous theoretical and philosophical complications.

Consider life.

In human (artificial and intelligent) technology, every thing and every action has a function within a "scheme of things". Goals are set, plans made, designs help to implement the plans.

Not so with life. Living things seem to be prone to disorientated thoughts, or the absorption and processing of absolutely irrelevant and inconsequential data. Moreover, these laboriously accumulated databases vanish instantaneously with death. The organism is akin to a computer which processes data using elaborate software and then turns itself off after 15-80 years, erasing all its work.

Most of us believe that what appears to be meaningless and functionless supports the meaningful and functional and leads to them. The complex and the meaningless (or at least the incomprehensible) always seem to resolve to the simple and the meaningful. Thus, if the complex is meaningless and disordered then order must somehow be connected to meaning and to simplicity (through the principles of organization and interaction).

Moreover, complex systems are inseparable from their

environment whose feedback induces their self-organization. Our discrete, observer-observed, approach to the Universe is, thus, deeply inadequate when applied to complex systems. These systems cannot be defined, described, or understood in isolation from their environment. They are one with their surroundings.

Many complex systems display emergent properties. These cannot be predicted even with perfect knowledge about said systems. We can say that the complex systems are creative and intuitive, even when not sentient, or intelligent. Must intuition and creativity be predicated on intelligence, consciousness, or sentience?

Thus, ultimately, complexity touches upon very essential questions of who we, what are we for, how we create, and how we evolve. It is not a simple matter, that...

III. Intersubjectivity and Communications

The act of communication implies that the parties communicating possess some common denominators, share some traits or emotions, and are essentially more or less the same.

The ***Encyclopaedia Britannica (1999 edition)*** defines empathy as:

"The ability to imagine oneself in anther's place and understand the other's feelings, desires, ideas, and actions. It is a term coined in the early 20th century, equivalent to the German Einfühlung and modelled on 'sympathy'."

Empathy is predicated upon and must, therefore, incorporate the following elements:

a. Imagination which is dependent on the ability to imagine;

b. The existence of an accessible Self (self-awareness or self-consciousness);

c. The existence of an available Other (other-awareness, recognizing the outside world);

d. The existence of accessible feelings, desires, ideas and representations of actions or their outcomes both in the empathizing Self ("Empathor") and in the Other, the object of empathy ("Empathee");

e. The availability of common frames of reference - aesthetic, moral, logical, physical, and other.

While (a) is presumed to be universally present in all agents (though in varying degrees), the existence of the other components of empathy cannot be taken for granted.

Conditions (b) and (c), for instance, are not satisfied by people who suffer from personality disorders, such as the Narcissistic Personality Disorder. Condition (d) is not met in autistic people (e.g., those who suffer from Asperger's Disorder). Condition (e) is so totally dependent on the specifics of the culture, period and society in which it exists that it is rather meaningless and ambiguous as a yardstick.

Thus, the very existence of empathy can be questioned. It is often confused with inter-subjectivity. The latter is defined thus by ***"The Oxford Companion to Philosophy, 1995"***:

"This term refers to the status of being somehow accessible to at least two (usually all, in principle) minds

or 'subjectivities'. It thus implies that there is some sort of communication between those minds; which in turn implies that each communicating minds aware not only of the existence of the other but also of its intention to convey information to the other. The idea, for theorists, is that if subjective processes can be brought into agreement, then perhaps that is as good as the (unattainable?) status of being objective - completely independent of subjectivity. The question facing such theorists is whether intersubjectivity is definable without presupposing an objective environment in which communication takes place (the 'wiring' from subject A to subject B). At a less fundamental level, however, the need for intersubjective verification of scientific hypotheses has been long recognized". (page 414).

On the face of it, the difference between intersubjectivity and empathy is double:

a. Intersubjectivity requires an ***EXPLICIT***, communicated agreement between at least two subjects.

b. It pertains to ***EXTERNAL*** things (so called "objective" entities).

Yet, these "differences" are artificial. This is how empathy is defined in "Psychology - An Introduction (Ninth Edition) by Charles G. Morris, Prentice Hall, 1996":

"Closely related to the ability to read other people's emotions is empathy - the arousal of an emotion in an observer that is a vicarious response to the other person's situation... Empathy depends not only on one's ability to identify someone else's emotions but also on one's capacity to put oneself in the other person's place

and to experience an appropriate emotional response. Just as sensitivity to non-verbal cues increases with age, so does empathy: The cognitive and perceptual abilities required for empathy develop only as a child matures... (page 442)

Thus empathy does require the communication of feelings ***AND*** an agreement on the appropriate outcome of the communicated emotions (an affective agreement). In the absence of such agreement, we are faced with inappropriate affect (laughing at a funeral, for instance).

Moreover, empathy often does relate to external objects and is provoked by them. There is no empathy in the absence of an (external) empathee. Granted, intersubjectivity is confined to the inanimate while empathy mainly applies to the living (animals, humans, even plants). But this is distinction is not essential.

Empathy can, thus, be recast as a form of intersubjectivity which involves living things as "objects" to which the communicated intersubjective agreement relates. It is wrong to limit our understanding of empathy to the communication of emotions. Rather, it is the intersubjective, concomitant experience of ***BEING***. The empathor empathizes not only with the empathee's emotions but also with his or her physical state and other parameters of existence (pain, hunger, thirst, suffocation, sexual pleasure etc.).

This leads to the important (and perhaps intractable) psychophysical question.

Intersubjectivity relates to external objects: the subjects communicate and reach an agreement regarding the way ***THEY*** have been ***AFFECTED*** by said external objects.

Empathy also relates to external objects (to Others) - but the subjects communicate and reach an agreement regarding the way ***THEY*** would have felt had they ***BEEN*** said external objects.

This is no minor difference, if it, indeed, exists. But does it really exist?

What is it that we feel in empathy? Do we feel ***OUR*** own emotions/sensations, provoked by an external trigger (classic intersubjectivity) or do we experience a ***TRANSFER*** of the object's feelings/sensations to us?

Probably the former. Empathy is the set of reactions - emotional and cognitive - triggered by an external object (the Other). It is the equivalent of resonance in the physical sciences. But we have no way of ascertaining that the "wavelength" of such resonance is identical in both subjects.

In other words, we have no way of verifying that the feelings or sensations invoked in the two (or more) subjects are the same. What I call "sadness" may not be what you call "sadness". Colours, for instance, have unique, uniform, independently measurable properties (their energy). Even so, no one can prove that what I see as "red" is what another person (perhaps a Daltonist) would call "red". If this is true where "objective", measurable phenomena, like colors, are concerned - it is infinitely more so in the case of emotions or feelings.

We are, therefore, forced to refine our definition:

Empathy is a form of intersubjectivity which involves living things as "objects" to which the communicated intersubjective agreement relates. It is the intersubjective, concomitant experience of BEING. The

empathor empathizes not only with the empathee's emotions but also with his physical state and other parameters of existence (pain, hunger, thirst, suffocation, sexual pleasure etc.).

BUT

The meaning attributed to the words used by the parties to the intersubjective agreement known as empathy is totally dependent upon each party. The same words are used, the same denotates, but it cannot be proven that the same connotates, the same experiences, emotions and sensations are being discussed or communicated.

Language (and, by extension, art and culture) serve to introduce us to other points of view ("what is it like to be someone else" to paraphrase Thomas Nagle). By providing a bridge between the subjective (inner experience) and the objective (words, images, sounds), language facilitates social exchange and interaction. It is a dictionary which translates one's subjective private language to the coin of the public medium. Knowledge and language are, thus, the ultimate social glue, though both are based on approximations and guesses (see George Steiner's "After Babel").

But, whereas the intersubjective agreement regarding measurements and observations concerning external objects ***IS*** verifiable or falsifiable using ***INDEPENDENT*** tools (e.g., lab experiments) - the intersubjective agreement which concerns itself with the emotions, sensations and experiences of subjects as communicated by them ***IS NOT*** verifiable or falsifiable using ***INDEPENDENT*** tools.

The interpretation of this second kind of agreement is

dependent upon introspection and an assumption that identical words used by different subjects possess identical meanings. This assumption is not falsifiable (or verifiable). It is neither true nor false. It is a probabilistic conjecture, but without an attendant probability distribution. It is, in short, a meaningless statement. As a result, empathy itself is meaningless.

In human-speak, if you say that you are sad and I empathize with you, it means that we have an agreement. I regard you as my object. You communicate to me a property of yours ("sadness"). This triggers in me a recollection of "what is sadness" or "what is to be sad". I say that I know what you mean, I have been sad before, I know what it is like to be sad. I empathize with you. We agree about being sad. We have an intersubjective agreement.

Alas, such an agreement is meaningless. We cannot (yet) measure sadness, quantify it, crystallize it, access it in any way from the outside. Both of us are totally and absolutely reliant on your introspection and on my introspection. There is no way anyone can prove that my "sadness" is even remotely similar to your sadness. I may be feeling or experiencing something that you might find hilarious and not sad at all. Still, I call it "sadness" and I empathize with you.

I. The Six Arguments against SETI

The various projects that comprise the 45-years old Search for Extraterrestrial Intelligence (SETI) raise two important issues:

(1) do Aliens exist and

(2) can we communicate with them.

If they do and we can, how come we never encountered an extraterrestrial, let alone spoken to or corresponded with one?

There are six basic explanations to this apparent conundrum and they are not mutually exclusive:

(1) That Aliens do not exist - ***click HERE to read the response***

(2) That the technology they use is far too advanced to be detected by us and, the flip side of this hypothesis, that the technology we us is insufficiently advanced to be noticed by them - ***click HERE to read the response***

(3) That we are looking for extraterrestrials at the wrong places - ***click HERE to read the response***

(4) That the Aliens are life forms so different to us that we fail to recognize them as sentient beings or to communicate with them - ***click HERE to read the response***

(5) That Aliens are trying to communicate with us but constantly fail due to a variety of hindrances, some structural and some circumstantial - ***click HERE to read the response***

(6) That they are avoiding us because of our misconduct (example: the alleged destruction of the environment) or because of our traits (for instance, our innate belligerence) or because of ethical considerations - ***click HERE to read the response***

Argument Number 1: Aliens do not exist (the Fermi Principle)

The assumption that life has arisen only on Earth is both counterintuitive and unlikely. Rather, it is highly probable that life is an extensive parameter of the Universe. In other words, that it is as pervasive and ubiquitous as are other generative phenomena, such as star formation.

This does not mean that extraterrestrial life and life on Earth are necessarily similar. Environmental determinism and the panspermia hypothesis are far from proven. There is no guarantee that we are not unique, as per the Rare Earth hypothesis. But the likelihood of finding life in one form or another elsewhere and everywhere in the Universe is high.

The widely-accepted mediocrity principle (Earth is a typical planet) and its reification, the controversial Drake (or Sagan) Equation usually predicts the existence of thousands of Alien civilizations - though only a vanishingly small fraction of these are likely to communicate with us.

But, if this is true, to quote Italian-American physicist Enrico Fermi: "where are they?". Fermi postulated that ubiquitous technologically advanced civilizations should be detectable - yet they are not! (The Fermi Paradox).

This paucity of observational evidence may be owing to the fact that our galaxy is old. In ten billion years of its existence, the majority of Alien races are likely to have simply died out or been extinguished by various cataclysmic events. Or maybe older and presumably wiser races are not as bent as we are on acquiring colonies. Remote exploration may have supplanted material probes and physical visits to wild locales such as Earth.

Aliens exist on our very planet. The minds of newborn

babies and of animals are as inaccessible to us as would be the minds of little green men and antenna-wielding adductors. Moreover, as we demonstrated in the previous chapter, even adult human beings from the same cultural background are as aliens to one another. Language is an inadequate and blunt instrument when it comes to communicating our inner worlds.

Argument Number 2: Their technology is too advanced

If Aliens really want to communicate with us, why would they use technologies that are incompatible with our level of technological progress? When we discover primitive tribes in the Amazon, do we communicate with them via e-mail or video conferencing - or do we strive to learn their language and modes of communication and emulate them to the best of our ability?

Of course there is always the possibility that we are as far removed from Alien species as ants are from us. We do not attempt to interface with insects. If the gap between us and Alien races in the galaxy is too wide, they are unlikely to want to communicate with us at all.

Argument Number 3: We are looking in all the wrong places

If life is, indeed, a defining feature (an extensive property) of our Universe, it should be anisotropically, symmetrically, and equally distributed throughout the vast expanse of space. In other words, never mind where we turn our scientific instruments, we should be able to detect life or traces of life.

Still, technological and budgetary constraints have served to dramatically narrow the scope of the search for intelligent transmissions. Vast swathes of the sky have

been omitted from the research agenda as have been many spectrum frequencies. SETI scientists assume that Alien species are as concerned with efficiency as we are and, therefore, unlikely to use certain wasteful methods and frequencies to communicate with us. This assumption of interstellar scarcity is, of course, dubious.

Argument Number 4: Aliens are too alien to be recognized

Carbon-based life forms may be an aberration or the rule, no one knows. The diversionist and convergionist schools of evolution are equally speculative as are the basic assumptions of both astrobiology and xenobiology. The rest of the universe may be populated with silicon, or nitrogen-phosphorus based races or with information-waves or contain numerous, non-interacting "shadow biospheres".

Recent discoveries of extremophile unicellular organisms lend credence to the belief that life can exist almost under any circumstances and in all conditions and that the range of planetary habitability is much larger than thought.

But whatever their chemical composition, most Alien species are likely to be sentient and intelligent. Intelligence is bound to be the great equalizer and the Universal Translator in our Universe. We may fail to recognize certain extragalactic races as life-forms but we are unlikely to mistake their intelligence for a naturally occurring phenomenon. We are equipped to know other sentient intelligent species regardless of how advanced and different they are - and they are equally fitted to acknowledge us as such.

Argument Number 5: We are failing to communicate

with Aliens

The hidden assumption underlying CETI/METI (Communication with ETI/Messaging to ETI) is that Aliens, like humans, are inclined to communicate. This may be untrue. The propensity for interpersonal communication (let alone the inter-species variety) may not be universal. Additionally, Aliens may not possess the same sense organs that we do (eyes) and may not be acquainted with our mathematics and geometry. Reality can be successfully described and captured by alternative mathematical systems and geometries.

Additionally, we often confuse complexity or orderliness with artificiality. As the example of quasars teaches us, not all regular or constant or strong or complex signals are artificial. Even the very use of language may be a uniquely human phenomenon - though most xenolinguists contest such exclusivity.

Moreover, as Wittgenstein observed, language is an essentially private affair: if a lion were to suddenly speak, we would not have understood it. Modern verificationist and referentialist linguistic theories seek to isolate the universals of language, so as to render all languages capable of translation - but they are still a long way off. Clarke's Third Law says that Alien civilizations well in advance of humanity may be deploying investigative methods and communicating in dialects undetectable even in principle by humans.

Argument Number 6: They are avoiding us

Advanced Alien civilizations may have found ways to circumvent the upper limit of the speed of light (for instance, by using wormholes). If they have and if UFO

sightings are mere hoaxes and bunk (as is widely believed by most scientists), then we are back to Fermi's "where are they".

One possible answer is they are avoiding us because of our misconduct (example: the alleged destruction of the environment) or because of our traits (for instance, our innate belligerence). Or maybe the Earth is a galactic wildlife reserve or a zoo or a laboratory (the Zoo hypothesis) and the Aliens do not wish to contaminate us or subvert our natural development. This falsely assumes that all Alien civilizations operate in unison and under a single code (the Uniformity of Motive fallacy).

But how would they know to avoid contact with us? How would they know of our misdeeds and bad character?

Our earliest radio signals have traversed no more than 130 light years omnidirectionally. Out television emissions are even closer to home. What other source of information could Aliens have except our own self-incriminating transmissions? None. In other words, it is extremely unlikely that our reputation precedes us. Luckily for us, we are virtual unknowns.

As early as 1960, the implications of an encounter with an ETI were clear:

"Evidences of its existence might also be found in artifacts left on the moon or other planets. The consequences for attitudes and values are unpredictable, but would vary profoundly in different cultures and between groups within complex societies; a crucial factor would be the nature of the communication between us and the other beings. Whether or not earth would be inspired to an all-out space effort by such a

discovery is moot: societies sure of their own place in the universe have disintegrated when confronted by a superior society, and others have survived even though changed. Clearly, the better we can come to understand the factors involved in responding to such crises the better prepared we may be."

(Brookins Institute - Proposed Studies on the Implications of Peaceful Space Activities for Human Affairs, 1960)

Perhaps we should not be looking forward to the First Encounter. It may also be our last.

Serial Killers

Countess Erszebet Bathory was a breathtakingly beautiful, unusually well-educated woman, married to a descendant of Vlad Dracula of Bram Stoker fame. In 1611, she was tried - though, being a noblewoman, not convicted - in Hungary for slaughtering 612 young girls. The true figure may have been 40-100, though the Countess recorded in her diary more than 610 girls and 50 bodies were found in her estate when it was raided.

The Countess was notorious as an inhuman sadist long before her hygienic fixation. She once ordered the mouth of a talkative servant sewn. It is rumoured that in her childhood she witnessed a gypsy being sewn into a horse's stomach and left to die.

The girls were not killed outright. They were kept in a dungeon and repeatedly pierced, prodded, pricked, and cut. The Countess may have bitten chunks of flesh off their bodies while alive. She is said to have bathed and showered in their blood in the mistaken belief that she

could thus slow down the aging process.

Her servants were executed, their bodies burnt and their ashes scattered. Being royalty, she was merely confined to her bedroom until she died in 1614. For a hundred years after her death, by royal decree, mentioning her name in Hungary was a crime.

Cases like Barothy's give the lie to the assumption that serial killers are a modern - or even post-modern - phenomenon, a cultural-societal construct, a by-product of urban alienation, Althusserian interpellation, and media glamorization. Serial killers are, indeed, largely made, not born. But they are spawned by every culture and society, molded by the idiosyncrasies of every period as well as by their personal circumstances and genetic makeup.

Still, every crop of serial killers mirrors and reifies the pathologies of the milieu, the depravity of the Zeitgeist, and the malignancies of the Leitkultur. The choice of weapons, the identity and range of the victims, the methodology of murder, the disposal of the bodies, the geography, the sexual perversions and paraphilias - are all informed and inspired by the slayer's environment, upbringing, community, socialization, education, peer group, sexual orientation, religious convictions, and personal narrative. Movies like "Born Killers", "Man Bites Dog", "Copycat", and the Hannibal Lecter series captured this truth.

Serial killers are the quiddity and quintessence of malignant narcissism.

Yet, to some degree, we all are narcissists. Primary narcissism is a universal and inescapable developmental phase. Narcissistic traits are common and often culturally

condoned. To this extent, serial killers are merely our reflection through a glass darkly.

In their book ***"Personality Disorders in Modern Life"***, Theodore Millon and Roger Davis attribute pathological narcissism to ***"a society that stresses individualism and self-gratification at the expense of community ... In an individualistic culture, the narcissist is 'God's gift to the world'. In a collectivist society, the narcissist is 'God's gift to the collective'"***.

Lasch described the narcissistic landscape thus (in ***"The Culture of Narcissism: American Life in an age of Diminishing Expectations"***, 1979):

"The new narcissist is haunted not by guilt but by anxiety. He seeks not to inflict his own certainties on others but to find a meaning in life. Liberated from the superstitions of the past, he doubts even the reality of his own existence ... His sexual attitudes are permissive rather than puritanical, even though his emancipation from ancient taboos brings him no sexual peace.

Fiercely competitive in his demand for approval and acclaim, he distrusts competition because he associates it unconsciously with an unbridled urge to destroy ... He (harbours) deeply antisocial impulses. He praises respect for rules and regulations in the secret belief that they do not apply to himself. Acquisitive in the sense that his cravings have no limits, he ... demands immediate gratification and lives in a state of restless, perpetually unsatisfied desire."

The narcissist's pronounced lack of empathy, off-handed exploitativeness, grandiose fantasies and uncompromising sense of entitlement make him treat all people as though

they were objects (he "objectifies" people). The narcissist regards others as either useful conduits for and sources of narcissistic supply (attention, adulation, etc.) - or as extensions of himself.

Similarly, serial killers often mutilate their victims and abscond with trophies - usually, body parts. Some of them have been known to eat the organs they have ripped - an act of merging with the dead and assimilating them through digestion. They treat their victims as some children do their rag dolls.

Killing the victim - often capturing him or her on film before the murder - is a form of exerting unmitigated, absolute, and irreversible control over it. The serial killer aspires to "freeze time" in the still perfection that he has choreographed. The victim is motionless and defenseless. The killer attains long sought "object permanence". The victim is unlikely to run on the serial assassin, or vanish as earlier objects in the killer's life (e.g., his parents) have done.

In malignant narcissism, the true self of the narcissist is replaced by a false construct, imbued with omnipotence, omniscience, and omnipresence. The narcissist's thinking is magical and infantile. He feels immune to the consequences of his own actions. Yet, this very source of apparently superhuman fortitude is also the narcissist's Achilles heel.

The narcissist's personality is chaotic. His defense mechanisms are primitive. The whole edifice is precariously balanced on pillars of denial, splitting, projection, rationalization, and projective identification. Narcissistic injuries - life crises, such as abandonment, divorce, financial difficulties, incarceration, public

opprobrium - can bring the whole thing tumbling down. The narcissist cannot afford to be rejected, spurned, insulted, hurt, resisted, criticized, or disagreed with.

Likewise, the serial killer is trying desperately to avoid a painful relationship with his object of desire. He is terrified of being abandoned or humiliated, exposed for what he is and then discarded. Many killers often have sex - the ultimate form of intimacy - with the corpses of their victims. Objectification and mutilation allow for unchallenged possession.

Devoid of the ability to empathize, permeated by haughty feelings of superiority and uniqueness, the narcissist cannot put himself in someone else's shoes, or even imagine what it means. The very experience of being human is alien to the narcissist whose invented False Self is always to the fore, cutting him off from the rich panoply of human emotions.

Thus, the narcissist believes that all people are narcissists. Many serial killers believe that killing is the way of the world. Everyone would kill if they could or were given the chance to do so. Such killers are convinced that they are more honest and open about their desires and, thus, morally superior. They hold others in contempt for being conforming hypocrites, cowed into submission by an overweening establishment or society.

The narcissist seeks to adapt society in general - and meaningful others in particular - to his needs. He regards himself as the epitome of perfection, a yardstick against which he measures everyone, a benchmark of excellence to be emulated. He acts the guru, the sage, the "psychotherapist", the "expert", the objective observer of human affairs. He diagnoses the "faults" and

"pathologies" of people around him and "helps" them "improve", "change", "evolve", and "succeed" - i.e., conform to the narcissist's vision and wishes.

Serial killers also "improve" their victims - slain, intimate objects - by "purifying" them, removing "imperfections", depersonalizing and dehumanizing them. This type of killer saves its victims from degeneration and degradation, from evil and from sin, in short: from a fate worse than death.

The killer's megalomania manifests at this stage. He claims to possess, or have access to, higher knowledge and morality. The killer is a special being and the victim is "chosen" and should be grateful for it. The killer often finds the victim's ingratitude irritating, though sadly predictable.

In his seminal work, "Aberrations of Sexual Life" (originally: "Psychopathia Sexualis"), quoted in the book "Jack the Ripper" by Donald Rumbelow, Kraft-Ebbing offers this observation:

"The perverse urge in murders for pleasure does not solely aim at causing the victim pain and - most acute injury of all - death, but that the real meaning of the action consists in, to a certain extent, imitating, though perverted into a monstrous and ghastly form, the act of defloration. It is for this reason that an essential component ... is the employment of a sharp cutting weapon; the victim has to be pierced, slit, even chopped up ... The chief wounds are inflicted in the stomach region and, in many cases, the fatal cuts run from the vagina into the abdomen. In boys an artificial vagina is even made ... One can connect a fetishistic element too with this process of hacking ... inasmuch as parts of the

body are removed and ... made into a collection."

Yet, the sexuality of the serial, psychopathic, killer is self-directed. His victims are props, extensions, aides, objects, and symbols. He interacts with them ritually and, either before or after the act, transforms his diseased inner dialog into a self-consistent extraneous catechism. The narcissist is equally auto-erotic. In the sexual act, he merely masturbates with other - living - people's bodies.

The narcissist's life is a giant repetition complex. In a doomed attempt to resolve early conflicts with significant others, the narcissist resorts to a restricted repertoire of coping strategies, defense mechanisms, and behaviors. He seeks to recreate his past in each and every new relationship and interaction. Inevitably, the narcissist is invariably confronted with the same outcomes. This recurrence only reinforces the narcissist's rigid reactive patterns and deep-set beliefs. It is a vicious, intractable, cycle.

Correspondingly, in some cases of serial killers, the murder ritual seemed to have recreated earlier conflicts with meaningful objects, such as parents, authority figures, or peers. The outcome of the replay is different to the original, though. This time, the killer dominates the situation.

The killings allow him to inflict abuse and trauma on others rather than be abused and traumatized. He outwits and taunts figures of authority - the police, for instance. As far as the killer is concerned, he is merely "getting back" at society for what it did to him. It is a form of poetic justice, a balancing of the books, and, therefore, a "good" thing. The murder is cathartic and allows the killer to release hitherto repressed and pathologically

transformed aggression - in the form of hate, rage, and envy.

But repeated acts of escalating gore fail to alleviate the killer's overwhelming anxiety and depression. He seeks to vindicate his negative introjects and sadistic superego by being caught and punished. The serial killer tightens the proverbial noose around his neck by interacting with law enforcement agencies and the media and thus providing them with clues as to his identity and whereabouts. When apprehended, most serial assassins experience a great sense of relief.

Serial killers are not the only objectifiers - people who treat others as objects. To some extent, leaders of all sorts - political, military, or corporate - do the same. In a range of demanding professions - surgeons, medical doctors, judges, law enforcement agents - objectification efficiently fends off attendant horror and anxiety.

Yet, serial killers are different. They represent a dual failure - of their own development as full-fledged, productive individuals - and of the culture and society they grow in. In a pathologically narcissistic civilization - social anomies proliferate. Such societies breed malignant objectifiers - people devoid of empathy - also known as "narcissists".

Click here to read the DSM-IV-TR (2000) diagnostic criteria for the Narcissistic Personality Disorder

Click here to read my analysis of the DSM-IV-TR and ICD-10 diagnostic criteria for the Narcissistic Personality Disorder

Read about the serial killer Edward (Ed or Eddie) Gein - Click HERE.

Interview (High School Project of Brandon Abear)

1 - Are most serial killers pathological narcissists? Is there a strong connection? 5 - Is the pathological narcissist more at risk of becoming a serial killerthan a person not suffering from the disorder?

A. Scholarly literature, biographical studies of serial killers, as well as anecdotal evidence suggest that serial and mass killers suffer from personality disorders and some of them are also psychotic. Cluster B personality disorders, such as the Antisocial Personality Disorder (psychopaths and sociopaths), the Borderline Personality Disorder, and the Narcissistic Personality Disorder seem to prevail although other personality disorders - notably the Paranoid, the Schizotypal, and even the Schizoid - are also represented.

2 - Wishing harm upon others, intense sexual thoughts, and similarly inappropriate ideas do appear in the minds of most people. What is it that allows the serial killer to let go of those inhibitions? Do you believe that pathological narcissism and objectification are heavily involved, rather than these serial killers just being naturally "evil?" If so, please explain.

A. Wishing harm unto others and intense sexual thoughts are not inherently inappropriate. It all depends on the context. For instance: wishing to harm someone who abused or victimized you is a healthy reaction. Some professions are founded on such desires to injure other people (for instance, the army and the police).

The difference between serial killers and the rest of us is that they lack impulse control and, therefore, express these drives and urges in socially-unacceptable settings

and ways. You rightly point out that serial killers also objectify their victims and treat them as mere instruments of gratification. This may have to do with the fact that serial and mass killers lack empathy and cannot understand their victims' "point of view". Lack of empathy is an important feature of the Narcissistic and the Antisocial personality disorders.

"Evil" is not a mental health construct and is not part of the language used in the mental health professions. It is a culture-bound value judgment. What is "evil" in one society is considered the right thing to do in another.

In his bestselling tome, "People of the Lie", Scott Peck claims that narcissists are evil. Are they?

The concept of "evil" in this age of moral relativism is slippery and ambiguous. The "Oxford Companion to Philosophy" (Oxford University Press, 1995) defines it thus: ***"The suffering which results from morally wrong human choices."***

To qualify as evil a person (Moral Agent) must meet these requirements:

a. That he can and does consciously choose between the (morally) right and wrong and constantly and consistently prefers the latter;

b. That he acts on his choice irrespective of the consequences to himself and to others.

Clearly, evil must be premeditated. Francis Hutcheson and Joseph Butler argued that evil is a by-product of the pursuit of one's interest or cause at the expense of other people's interests or causes. But this ignores the critical element of conscious choice among equally efficacious

alternatives. Moreover, people often pursue evil even when it jeopardizes their well-being and obstructs their interests. Sadomasochists even relish this orgy of mutual assured destruction.

Narcissists satisfy both conditions only partly. Their evil is utilitarian. They are evil only when being malevolent secures a certain outcome. Sometimes, they consciously choose the morally wrong – but not invariably so. They act on their choice even if it inflicts misery and pain on others. But they never opt for evil if they are to bear the consequences. They act maliciously because it is expedient to do so – not because it is "in their nature".

The narcissist is able to tell right from wrong and to distinguish between good and evil. In the pursuit of his interests and causes, he sometimes chooses to act wickedly. Lacking empathy, the narcissist is rarely remorseful. Because he feels entitled, exploiting others is second nature. The narcissist abuses others absent-mindedly, off-handedly, as a matter of fact.

The narcissist objectifies people and treats them as expendable commodities to be discarded after use. Admittedly, that, in itself, is evil. Yet, it is the mechanical, thoughtless, heartless face of narcissistic abuse – devoid of human passions and of familiar emotions – that renders it so alien, so frightful and so repellent.

We are often shocked less by the actions of narcissist than by the way he acts. In the absence of a vocabulary rich enough to capture the subtle hues and gradations of the spectrum of narcissistic depravity, we default to habitual adjectives such as "good" and "evil". Such intellectual laziness does this pernicious phenomenon and its victims little justice.

Note - Why are we Fascinated by Evil and Evildoers?

The common explanation is that one is fascinated with evil and evildoers because, through them, one vicariously expresses the repressed, dark, and evil parts of one's own personality. Evildoers, according to this theory, represent the "shadow" nether lands of our selves and, thus, they constitute our antisocial alter egos. Being drawn to wickedness is an act of rebellion against social strictures and the crippling bondage that is modern life. It is a mock synthesis of our Dr. Jekyll with our Mr. Hyde. It is a cathartic exorcism of our inner demons.

Yet, even a cursory examination of this account reveals its flaws.

Far from being taken as a familiar, though suppressed, element of our psyche, evil is mysterious. Though preponderant, villains are often labeled "monsters" - abnormal, even supernatural aberrations. It took Hanna Arendt two thickset tomes to remind us that evil is banal and bureaucratic, not fiendish and omnipotent.

In our minds, evil and magic are intertwined. Sinners seem to be in contact with some alternative reality where the laws of Man are suspended. Sadism, however deplorable, is also admirable because it is the reserve of Nietzsche's Supermen, an indicator of personal strength and resilience. A heart of stone lasts longer than its carnal counterpart.

Throughout human history, ferocity, mercilessness, and lack of empathy were extolled as virtues and enshrined in social institutions such as the army and the courts. The doctrine of Social Darwinism and the advent of moral relativism and deconstruction did away with ethical

absolutism. The thick line between right and wrong thinned and blurred and, sometimes, vanished.

Evil nowadays is merely another form of entertainment, a species of pornography, a sanguineous art. Evildoers enliven our gossip, color our drab routines and extract us from dreary existence and its depressive correlates. It is a little like collective self-injury. Self-mutilators report that parting their flesh with razor blades makes them feel alive and reawakened. In this synthetic universe of ours, evil and gore permit us to get in touch with real, raw, painful life.

The higher our desensitized threshold of arousal, the more profound the evil that fascinates us. Like the stimuli-addicts that we are, we increase the dosage and consume added tales of malevolence and sinfulness and immorality. Thus, in the role of spectators, we safely maintain our sense of moral supremacy and self-righteousness even as we wallow in the minutest details of the vilest crimes.

3 - Pathological narcissism can seemingly "decay" with age, as stated in your article. Do you feel this applies to serial killers urges as well?

A. Actually, I state in my article that in ***RARE CASES***, pathological narcissism as expressed in antisocial conduct recedes with age. Statistics show that the propensity to act criminally decreases in older felons. However, this doesn't seem to apply to mass and serial killers. Age distribution in this group is skewed by the fact that most of them are caught early on but there are many cases of midlife and even old perpetrators.

4 - Are serial killers (and pathological narcissism) created by their environments, genetics, or a

combination of both?

A. No one knows.

Are personality disorders the outcomes of inherited traits? Are they brought on by abusive and traumatizing upbringing? Or, maybe they are the sad results of the confluence of both?

To identify the role of heredity, researchers have resorted to a few tactics: they studied the occurrence of similar psychopathologies in identical twins separated at birth, in twins and siblings who grew up in the same environment, and in relatives of patients (usually across a few generations of an extended family).

Tellingly, twins - both those raised apart and together - show the same correlation of personality traits, 0.5 (Bouchard, Lykken, McGue, Segal, and Tellegan, 1990). Even attitudes, values, and interests have been shown to be highly affected by genetic factors (Waller, Kojetin, Bouchard, Lykken, et al., 1990).

A review of the literature demonstrates that the genetic component in certain personality disorders (mainly the Antisocial and Schizotypal) is strong (Thapar and McGuffin, 1993). Nigg and Goldsmith found a connection in 1993 between the Schizoid and Paranoid personality disorders and schizophrenia.

The three authors of the Dimensional Assessment of Personality Pathology (Livesley, Jackson, and Schroeder) joined forces with Jang in 1993 to study whether 18 of the personality dimensions were heritable. They found that 40 to 60% of the recurrence of certain personality traits across generations can be explained by heredity:

anxiousness, callousness, cognitive distortion, compulsivity, identity problems, oppositionality, rejection, restricted expression, social avoidance, stimulus seeking, and suspiciousness. Each and every one of these qualities is associated with a personality disorder. In a roundabout way, therefore, this study supports the hypothesis that personality disorders are hereditary.

This would go a long way towards explaining why in the same family, with the same set of parents and an identical emotional environment, some siblings grow to have personality disorders, while others are perfectly "normal". Surely, this indicates a genetic predisposition of some people to developing personality disorders.

Still, this oft-touted distinction between nature and nurture may be merely a question of semantics.

As I wrote in my book, "Malignant Self Love - Narcissism Revisited":

"When we are born, we are not much more than the sum of our genes and their manifestations. Our brain - a physical object - is the residence of mental health and its disorders. Mental illness cannot be explained without resorting to the body and, especially, to the brain. And our brain cannot be contemplated without considering our genes. Thus, any explanation of our mental life that leaves out our hereditary makeup and our neurophysiology is lacking. Such lacking theories are nothing but literary narratives. Psychoanalysis, for instance, is often accused of being divorced from corporeal reality.

Our genetic baggage makes us resemble a personal

computer. We are an all-purpose, universal, machine. Subject to the right programming (conditioning, socialization, education, upbringing) - we can turn out to be anything and everything. A computer can imitate any other kind of discrete machine, given the right software. It can play music, screen movies, calculate, print, paint. Compare this to a television set - it is constructed and expected to do one, and only one, thing. It has a single purpose and a unitary function. We, humans, are more like computers than like television sets.

True, single genes rarely account for any behavior or trait. An array of coordinated genes is required to explain even the minutest human phenomenon. "Discoveries" of a "gambling gene" here and an "aggression gene" there are derided by the more serious and less publicity-prone scholars. Yet, it would seem that even complex behaviors such as risk taking, reckless driving, and compulsive shopping have genetic underpinnings."

5 - Man or Monster?

A. Man, of course. There are no monsters, except in fantasy. Serial and mass killers are merely specks in the infinite spectrum of "being human". It is this familiarity - the fact that they are only infinitesimally different from me and you - that makes them so fascinating. Somewhere inside each and every one of us there is a killer, kept under the tight leash of socialization. When circumstances change and allow its expression, the drive to kill inevitably and invariably erupts.

Sex and Gender

"One is not born, but rather becomes, a woman."

Simone de Beauvoir, The Second Sex (1949)

In nature, male and female are distinct. She-elephants are gregarious, he-elephants solitary. Male zebra finches are loquacious - the females mute. Female green spoon worms are 200,000 times larger than their male mates. These striking differences are biological - yet they lead to differentiation in social roles and skill acquisition.

Alan Pease, author of a book titled "Why Men Don't Listen and Women Can't Read Maps", believes that women are spatially-challenged compared to men. The British firm, Admiral Insurance, conducted a study of half a million claims. They found that "women were almost twice as likely as men to have a collision in a car park, 23 percent more likely to hit a stationary car, and 15 percent more likely to reverse into another vehicle" (Reuters).

Yet gender "differences" are often the outcomes of bad scholarship. Consider Admiral insurance's data. As Britain's Automobile Association (AA) correctly pointed out - women drivers tend to make more short journeys around towns and shopping centers and these involve frequent parking. Hence their ubiquity in certain kinds of claims. Regarding women's alleged spatial deficiency, in Britain, girls have been outperforming boys in scholastic aptitude tests - including geometry and maths - since 1988.

In an Op-Ed published by the New York Times on January 23, 2005, Olivia Judson cited this example

"Beliefs that men are intrinsically better at this or that have repeatedly led to discrimination and prejudice, and then they've been proved to be nonsense. Women were

thought not to be world-class musicians. But when American symphony orchestras introduced blind auditions in the 1970's - the musician plays behind a screen so that his or her gender is invisible to those listening - the number of women offered jobs in professional orchestras increased. Similarly, in science, studies of the ways that grant applications are evaluated have shown that women are more likely to get financing when those reading the applications do not know the sex of the applicant."

On the other wing of the divide, Anthony Clare, a British psychiatrist and author of "On Men" wrote:

"At the beginning of the 21st century it is difficult to avoid the conclusion that men are in serious trouble. Throughout the world, developed and developing, antisocial behavior is essentially male. Violence, sexual abuse of children, illicit drug use, alcohol misuse, gambling, all are overwhelmingly male activities. The courts and prisons bulge with men. When it comes to aggression, delinquent behavior, risk taking and social mayhem, men win gold."

Men also mature later, die earlier, are more susceptible to infections and most types of cancer, are more likely to be dyslexic, to suffer from a host of mental health disorders, such as Attention Deficit Hyperactivity Disorder (ADHD), and to commit suicide.

In her book, "Stiffed: The Betrayal of the American Man", Susan Faludi describes a crisis of masculinity following the breakdown of manhood models and work and family structures in the last five decades. In the film "Boys don't Cry", a teenage girl binds her breasts and acts the male in a caricatural relish of stereotypes of virility. Being a man

is merely a state of mind, the movie implies.

But what does it really mean to be a "male" or a "female"? Are gender identity and sexual preferences genetically determined? Can they be reduced to one's sex? Or are they amalgams of biological, social, and psychological factors in constant interaction? Are they immutable lifelong features or dynamically evolving frames of self-reference?

In the aforementioned New York Times Op-Ed, Olivia Judson opines:

"Many sex differences are not, therefore, the result of his having one gene while she has another. Rather, they are attributable to the way particular genes behave when they find themselves in him instead of her. The magnificent difference between male and female green spoon worms, for example, has nothing to do with their having different genes: each green spoon worm larva could go either way. Which sex it becomes depends on whether it meets a female during its first three weeks of life. If it meets a female, it becomes male and prepares to regurgitate; if it doesn't, it becomes female and settles into a crack on the sea floor."

Yet, certain traits attributed to one's sex are surely better accounted for by the demands of one's environment, by cultural factors, the process of socialization, gender roles, and what George Devereux called "ethnopsychiatry" in "Basic Problems of Ethnopsychiatry" (University of Chicago Press, 1980). He suggested to divide the unconscious into the id (the part that was always instinctual and unconscious) and the "ethnic unconscious" (repressed material that was once conscious). The latter is mostly molded by prevailing cultural mores and includes all our defense mechanisms and most of the superego.

So, how can we tell whether our sexual role is mostly in our blood or in our brains?

The scrutiny of borderline cases of human sexuality - notably the transgendered or intersexed - can yield clues as to the distribution and relative weights of biological, social, and psychological determinants of gender identity formation.

The results of a study conducted by Uwe Hartmann, Hinnerk Becker, and Claudia Rueffer-Hesse in 1997 and titled "Self and Gender: Narcissistic Pathology and Personality Factors in Gender Dysphoric Patients", published in the "International Journal of Transgenderism", "indicate significant psychopathological aspects and narcissistic dysregulation in a substantial proportion of patients." Are these "psychopathological aspects" merely reactions to underlying physiological realities and changes? Could social ostracism and labeling have induced them in the "patients"?

The authors conclude:

"The cumulative evidence of our study ... is consistent with the view that gender dysphoria is a disorder of the sense of self as has been proposed by Beitel (1985) or Pfäfflin (1993). The central problem in our patients is about identity and the self in general and the transsexual wish seems to be an attempt at reassuring and stabilizing the self-coherence which in turn can lead to a further destabilization if the self is already too fragile. In this view the body is instrumentalized to create a sense of identity and the splitting symbolized in the hiatus between the rejected body-self and other parts of the self is more between good and bad objects than between masculine and feminine."

Freud, Kraft-Ebbing, and Fliess suggested that we are all bisexual to a certain degree. As early as 1910, Dr. Magnus Hirschfeld argued, in Berlin, that absolute genders are "abstractions, invented extremes". The consensus today is that one's sexuality is, mostly, a psychological construct which reflects gender role orientation.

Joanne Meyerowitz, a professor of history at Indiana University and the editor of The Journal of American History observes, in her recently published tome, "How Sex Changed: A History of Transsexuality in the United States", that the very meaning of masculinity and femininity is in constant flux.

Transgender activists, says Meyerowitz, insist that gender and sexuality represent "distinct analytical categories". The New York Times wrote in its review of the book: "Some male-to-female transsexuals have sex with men and call themselves homosexuals. Some female-to-male transsexuals have sex with women and call themselves lesbians. Some transsexuals call themselves asexual."

So, it is all in the mind, you see.

This would be taking it too far. A large body of scientific evidence points to the genetic and biological underpinnings of sexual behavior and preferences.

The German science magazine, "Geo", reported recently that the males of the fruit fly "drosophila melanogaster" switched from heterosexuality to homosexuality as the temperature in the lab was increased from 19 to 30 degrees Celsius. They reverted to chasing females as it was lowered.

The brain structures of homosexual sheep are different to those of straight sheep, a study conducted recently by the

Oregon Health & Science University and the U.S. Department of Agriculture Sheep Experiment Station in Dubois, Idaho, revealed. Similar differences were found between gay men and straight ones in 1995 in Holland and elsewhere. The preoptic area of the hypothalamus was larger in heterosexual men than in both homosexual men and straight women.

According an article, titled "When Sexual Development Goes Awry", by Suzanne Miller, published in the September 2000 issue of the "World and I", various medical conditions give rise to sexual ambiguity. Congenital adrenal hyperplasia (CAH), involving excessive androgen production by the adrenal cortex, results in mixed genitalia. A person with the complete androgen insensitivity syndrome (AIS) has a vagina, external female genitalia and functioning, androgen-producing, testes - but no uterus or fallopian tubes.

People with the rare 5-alpha reductase deficiency syndrome are born with ambiguous genitalia. They appear at first to be girls. At puberty, such a person develops testicles and his clitoris swells and becomes a penis. Hermaphrodites possess both ovaries and testicles (both, in most cases, rather undeveloped). Sometimes the ovaries and testicles are combined into a chimera called ovotestis.

Most of these individuals have the chromosomal composition of a woman together with traces of the Y, male, chromosome. All hermaphrodites have a sizable penis, though rarely generate sperm. Some hermaphrodites develop breasts during puberty and menstruate. Very few even get pregnant and give birth.

Anne Fausto-Sterling, a developmental geneticist, professor of medical science at Brown University, and

author of "Sexing the Body", postulated, in 1993, a continuum of 5 sexes to supplant the current dimorphism: males, merms (male pseudohermaphrodites), herms (true hermaphrodites), ferms (female pseudohermaphrodites), and females.

Intersexuality (hermpahroditism) is a natural human state. We are all conceived with the potential to develop into either sex. The embryonic developmental default is female. A series of triggers during the first weeks of pregnancy places the fetus on the path to maleness.

In rare cases, some women have a male's genetic makeup (XY chromosomes) and vice versa. But, in the vast majority of cases, one of the sexes is clearly selected. Relics of the stifled sex remain, though. Women have the clitoris as a kind of symbolic penis. Men have breasts (mammary glands) and nipples.

The Encyclopedia Britannica 2003 edition describes the formation of ovaries and testes thus:

"In the young embryo a pair of gonads develop that are indifferent or neutral, showing no indication whether they are destined to develop into testes or ovaries. There are also two different duct systems, one of which can develop into the female system of oviducts and related apparatus and the other into the male sperm duct system. As development of the embryo proceeds, either the male or the female reproductive tissue differentiates in the originally neutral gonad of the mammal."

Yet, sexual preferences, genitalia and even secondary sex characteristics, such as facial and pubic hair are first order phenomena. Can genetics and biology account for male and female behavior patterns and social interactions

("gender identity")? Can the multi-tiered complexity and richness of human masculinity and femininity arise from simpler, deterministic, building blocks?

Sociobiologists would have us think so.

For instance: the fact that we are mammals is astonishingly often overlooked. Most mammalian families are composed of mother and offspring. Males are peripatetic absentees. Arguably, high rates of divorce and birth out of wedlock coupled with rising promiscuity merely reinstate this natural "default mode", observes Lionel Tiger, a professor of anthropology at Rutgers University in New Jersey. That three quarters of all divorces are initiated by women tends to support this view.

Furthermore, gender identity is determined during gestation, claim some scholars.

Milton Diamond of the University of Hawaii and Dr. Keith Sigmundson, a practicing psychiatrist, studied the much-celebrated John/Joan case. An accidentally castrated normal male was surgically modified to look female, and raised as a girl but to no avail. He reverted to being a male at puberty.

His gender identity seems to have been inborn (assuming he was not subjected to conflicting cues from his human environment). The case is extensively described in John Colapinto's tome "As Nature Made Him: The Boy Who Was Raised as a Girl".

HealthScoutNews cited a study published in the November 2002 issue of "Child Development". The researchers, from City University of London, found that the level of maternal testosterone during pregnancy affects

the behavior of neonatal girls and renders it more masculine. "High testosterone" girls "enjoy activities typically considered male behavior, like playing with trucks or guns". Boys' behavior remains unaltered, according to the study.

Yet, other scholars, like John Money, insist that newborns are a "blank slate" as far as their gender identity is concerned. This is also the prevailing view. Gender and sex-role identities, we are taught, are fully formed in a process of socialization which ends by the third year of life. The Encyclopedia Britannica 2003 edition sums it up thus:

"Like an individual's concept of his or her sex role, gender identity develops by means of parental example, social reinforcement, and language. Parents teach sex-appropriate behavior to their children from an early age, and this behavior is reinforced as the child grows older and enters a wider social world. As the child acquires language, he also learns very early the distinction between "he" and "she" and understands which pertains to him- or herself."

So, which is it - nature or nurture? There is no disputing the fact that our sexual physiology and, in all probability, our sexual preferences are determined in the womb. Men and women are different - physiologically and, as a result, also psychologically.

Society, through its agents - foremost amongst which are family, peers, and teachers - represses or encourages these genetic propensities. It does so by propagating "gender roles" - gender-specific lists of alleged traits, permissible behavior patterns, and prescriptive morals and norms. Our "gender identity" or "sex role" is shorthand for the way we

make use of our natural genotypic-phenotypic endowments in conformity with social-cultural "gender roles".

Inevitably as the composition and bias of these lists change, so does the meaning of being "male" or "female". Gender roles are constantly redefined by tectonic shifts in the definition and functioning of basic social units, such as the nuclear family and the workplace. The cross-fertilization of gender-related cultural memes renders "masculinity" and "femininity" fluid concepts.

One's sex equals one's bodily equipment, an objective, finite, and, usually, immutable inventory. But our endowments can be put to many uses, in different cognitive and affective contexts, and subject to varying exegetic frameworks. As opposed to "sex" - "gender" is, therefore, a socio-cultural narrative. Both heterosexual and homosexual men ejaculate. Both straight and lesbian women climax. What distinguishes them from each other are subjective introjects of socio-cultural conventions, not objective, immutable "facts".

In "The New Gender Wars", published in the November/December 2000 issue of "Psychology Today", Sarah Blustain sums up the "bio-social" model proposed by Mice Eagly, a professor of psychology at Northwestern University and a former student of his, Wendy Wood, now a professor at the Texas A&M University:

"Like (the evolutionary psychologists), Eagly and Wood reject social constructionist notions that all gender differences are created by culture. But to the question of where they come from, they answer differently: not our genes but our roles in society. This narrative focuses on how societies respond to the basic biological differences -

men's strength and women's reproductive capabilities - and how they encourage men and women to follow certain patterns.

'If you're spending a lot of time nursing your kid', explains Wood, 'then you don't have the opportunity to devote large amounts of time to developing specialized skills and engaging tasks outside of the home'. And, adds Eagly, 'if women are charged with caring for infants, what happens is that women are more nurturing. Societies have to make the adult system work [so] socialization of girls is arranged to give them experience in nurturing'.

According to this interpretation, as the environment changes, so will the range and texture of gender differences. At a time in Western countries when female reproduction is extremely low, nursing is totally optional, childcare alternatives are many, and mechanization lessens the importance of male size and strength, women are no longer restricted as much by their smaller size and by child-bearing. That means, argue Eagly and Wood, that role structures for men and women will change and, not surprisingly, the way we socialize people in these new roles will change too. (Indeed, says Wood, 'sex differences seem to be reduced in societies where men and women have similar status,' she says. If you're looking to live in more gender-neutral environment, try Scandinavia.)"

Sex (in Nature)

Recent studies in animal sexuality serve to dispel two common myths: that sex is exclusively about reproduction and that homosexuality is an unnatural sexual preference. It now appears that sex is also about recreation as it frequently occurs out of the mating season. And same-sex copulation and bonding are common in hundreds of

species, from bonobo apes to gulls.

Moreover, homosexual couples in the Animal Kingdom are prone to behaviors commonly - and erroneously - attributed only to heterosexuals. The New York Times reported in its February 7, 2004 issue about a couple of gay penguins who are desperately and recurrently seeking to incubate eggs together.

In the same article ("Love that Dare not Squeak its Name"), Bruce Bagemihl, author of the groundbreaking ***"Biological Exuberance: Animal Homosexuality and Natural Diversity"***, defines homosexuality as ***"any of these behaviors between members of the same sex: long-term bonding, sexual contact, courtship displays or the rearing of young."***

Still, that a certain behavior occurs in nature (is "natural") does not render it moral. Infanticide, patricide, suicide, gender bias, and substance abuse - are all to be found in various animal species. It is futile to argue for homosexuality or against it based on zoological observations. Ethics is about surpassing nature - not about emulating it.

The more perplexing question remains: what are the evolutionary and biological advantages of recreational sex and homosexuality? Surely, both entail the waste of scarce resources.

Convoluted explanations, such as the one proffered by Marlene Zuk (homosexuals contribute to the gene pool by nurturing and raising young relatives) defy common sense, experience, and the calculus of evolution. There are no field studies that show conclusively or even indicate that homosexuals tend to raise and nurture their younger relatives more that straights do.

Moreover, the arithmetic of genetics would rule out such a stratagem. If the aim of life is to pass on one's genes from one generation to the next, the homosexual would have been far better off raising his own children (who carry forward half his DNA) - rather than his nephew or niece (with whom he shares merely one quarter of his genetic material.)

What is more, though genetically-predisposed, homosexuality may be partly acquired, the outcome of environment and nurture, rather than nature.

An oft-overlooked fact is that recreational sex and homosexuality have one thing in common: they do not lead to reproduction. Homosexuality may, therefore, be a form of pleasurable sexual play. It may also enhance same-sex bonding and train the young to form cohesive, purposeful groups (the army and the boarding school come to mind).

Furthermore, homosexuality amounts to the culling of 10-15% of the gene pool in each generation. The genetic material of the homosexual is not propagated and is effectively excluded from the big roulette of life. Growers - of anything from cereals to cattle - similarly use random culling to improve their stock. As mathematical models show, such repeated mass removal of DNA from the common brew seems to optimize the species and increase its resilience and efficiency.

It is ironic to realize that homosexuality and other forms of non-reproductive, pleasure-seeking sex may be key evolutionary mechanisms and integral drivers of population dynamics. Reproduction is but one goal among many, equally important, end results. Heterosexuality is

but one strategy among a few optimal solutions. Studying biology may yet lead to greater tolerance for the vast repertory of human sexual foibles, preferences, and predilections. Back to nature, in this case, may be forward to civilization.

Suggested Literature

Bagemihl, Bruce - ***"Biological Exuberance: Animal Homosexuality and Natural Diversity"*** - St. Martin's Press, 1999

De-Waal, Frans and Lanting, Frans - ***"Bonobo: The Forgotten Ape"*** - University of California Press, 1997

De Waal, Frans - ***"Bonobo Sex and Society"*** - March 1995 issue of Scientific American, pp. 82-88

Trivers, Robert - ***Natural Selection and Social Theory: Selected Papers*** - Oxford University Press, 2002

Zuk, Marlene - ***"Sexual Selections: What We Can and Can't Learn About Sex From Animals"*** - University of California Press, 2002

Solow Paradox

On March 21, 2005, Germany's prestigious Ifo Institute at the University of Munich published a research report according to which "More technology at school can have a detrimental effect on education and computers at home can harm learning".

It is a prime demonstration of the Solow Paradox.

Named after the Nobel laureate in economics, it was stated by him thus: "You can see the computer age

everywhere these days, except in the productivity statistics". The venerable economic magazine, "The Economist" in its issue dated July 24th, 1999 quotes the no less venerable Professor Robert Gordon ("one of America's leading authorities on productivity") - p.20:

"...the productivity performance of the manufacturing sector of the United States economy since 1995 has been abysmal rather than admirable. Not only has productivity growth in non-durable manufacturing ***decelerated*** in 1995-9 compared to 1972-95, but productivity growth in durable manufacturing stripped of computers has ***decelerated even more."***

What should be held true - the hype or the dismal statistics? The answer to this question is of crucial importance to economies in transition. If investment in IT (information technology) actually ***RETARDS*** growth - then it should be avoided, at least until a functioning marketplace is in place to counter its growth suppressing effects.

The notion that IT retards growth is counter-intuitive. It would seem that, at the very least, computers allow us to do more of the same things only faster. Typing, order processing, inventory management, production processes, number crunching are all tackled more efficiently by computers. Added efficiency should translate into enhanced productivity. Put simply, the same number of people can do more, faster, and more cheaply with computers than without them. Yet reality begs to differ.

Two elements are often neglected in considering the beneficial effects of IT.

First, the concept of information technology comprises

two very distinct economic entities: an all-purpose machine (the PC) plus its enabling applications and a medium (the internet). Capital assets are distinct from media assets and are governed by different economic principles. Thus, they should be managed and deployed differently.

Massive, double digit increases in productivity are feasible in the manufacturing of computer hardware. The inevitable outcome is an exponential explosion in computing and networking power. The dual rules which govern IT - Moore's (a doubling of chip capacity and computing prowess every 18 months) and Metcalf's (the exponential increase in a network's processing ability as it encompasses additional computers) - also dictate a breathtaking pace of increased productivity in the hardware cum software aspect of IT. This has been duly detected by Robert Gordon in his "Has the 'New Economy' rendered the productivity slowdown obsolete?"

But for this increased productivity to trickle down to the rest of the economy a few conditions have to be met.

The transition from old technologies rendered obsolete by computing to new ones must not involve too much "creative destruction". The costs of getting rid of old hardware, software, of altering management techniques or adopting new ones, of shedding redundant manpower, of searching for new employees to replace the unqualified or unqualifiable, of installing new hardware, software and of training new people in all levels of the corporation are enormous. They must never exceed the added benefits of the newly introduced technology in the long run.

Hence the crux of the debate. Is IT more expensive to introduce, run and maintain than the technologies that it

so confidently aims to replace? Will new technologies emerge in a pace sufficient to compensate for the disappearance of old ones? As the technology matures, will it overcome its childhood maladies (lack of operational reliability, bad design, non-specificity, immaturity of the first generation of computer users, absence of user friendliness and so on)?

Moreover, is IT an evolution or a veritable revolution? Does it merely allow us to do more of the same only differently - or does it open up hitherto unheard of vistas for human imagination, entrepreneurship, and creativity? The signals are mixed.

Hitherto, IT did not succeed to do to human endeavour what electricity, the internal combustion engine or even the telegraph have done. It is also not clear at all that IT is a ***UNIVERSAL*** phenomenon suitable to all business climes and mentalities.

The penetration of both IT and the medium it gave rise to (the internet) is not globally uniform even when adjusting for purchasing power and even among the corporate class. Developing countries should take all this into consideration. Their economies may be too obsolete and hidebound, poor and badly managed to absorb yet another critical change in the form of an IT shock wave. The introduction of IT into an ill-prepared market or corporation can be and often is counter-productive and growth-retarding.

In hindsight, 20 years hence, we might come to understand that computers improved our capacity to do things differently and more productively. But one thing is fast becoming clear. The added benefits of IT are highly sensitive to and dependent upon historical, psychosocial

and economic parameters outside the perimeter of the technology itself. When it is introduced, how it is introduced, for which purposes is it put to use and even by whom it is introduced. These largely determine the costs of its introduction and, therefore, its feasibility and contribution to the enhancement of productivity. Developing countries better take note.

Historical Note - The Evolutionary Cycle of New Media

The Internet is cast by its proponents as the great white hope of many a developing and poor country. It is, therefore, instructive to try to predict its future and describe the phases of its possible evolution.

The internet runs on computers but it is related to them in the same way that a TV show is related to a TV set. To bundle to two, as it is done today, obscures the true picture and can often be very misleading. For instance: it is close to impossible to measure productivity in the services sector, let alone is something as wildly informal and dynamic as the internet.

Moreover, different countries and regions are caught in different parts of the cycle. Central and Eastern Europe have just entered it while northern Europe, some parts of Asia, and North America are in the vanguard.

So, what should developing and poor countries expect to happen to the internet globally and, later, within their own territories? The issue here cannot be cast in terms of productivity. It is better to apply to it the imagery of the business cycle.

It is clear by now that the internet is a medium and, as such, is subject to the evolutionary cycle of its predecessors. Every medium of communications goes

through the same evolutionary cycle.

The internet is simply the latest in a series of networks which revolutionized our lives. A century before the internet, the telegraph and the telephone have been similarly heralded as "global" and transforming. The power grid and railways were also greeted with universal enthusiasm and acclaim. But no other network resembled the Internet more than radio (and, later, television).

Every new medium starts with ***Anarchy -*** or ***The Public Phase***.

At this stage, the medium and the resources attached to it are very cheap, accessible, and under no or little regulatory constraint. The public sector steps in: higher education institutions, religious institutions, government, not for profit organizations, non governmental organizations (NGOs), trade unions, etc. Bedeviled by limited financial resources, they regard the new medium as a cost effective way of disseminating their messages.

The Internet was not exempt from this phase which is at its death throes. It was born into utter anarchy in the form of ad hoc computer networks, local networks, and networks spun by organizations (mainly universities and organs of the government such as DARPA, a part of the defence establishment in the USA).

Non commercial entities jumped on the bandwagon and started sewing and patching these computer networks together (an activity fully subsidized with government funds). The result was a globe-spanning web of academic institutions. The American Pentagon stepped in and established the network of all networks, the ARPANET. Other government departments joined the fray, headed by

the National Science Foundation (NSF) which withdrew only lately from the Internet.

The Internet (with a different name) became public property - but with access granted only to a select few.

Radio took precisely this course. Radio transmissions started in the USA in 1920. Those were anarchic broadcasts with no discernible regularity. Non commercial organizations and not for profit organizations began their own broadcasts and even created radio broadcasting infrastructure (albeit of the cheap and local kind) dedicated to their audiences. Trade unions, certain educational institutions and religious groups commenced "public radio" broadcasts.

The anarchic phase is followed by a ***commercial*** one.

When the users (e.g., listeners in the case of the radio, or owners of PCs and modems in the realm of the Internet) reach a critical mass - businesses become interested. In the name of capitalist ideology (another religion, really) they demand "privatization" of the medium.

In its attempt to take over the new medium, Big Business pull at the heartstrings of modern freemarketry. Deregulating and commercializing the medium would encourage the efficient allocation of resources, the inevitable outcome of untrammeled competition; they would keep in check corruption and inefficiency, naturally associated with the public sector ("Other People's Money" - OPM); they would thwart the ulterior motives of the political class; and they would introduce variety and cater to the tastes and interests of diverse audiences. In short, private enterprise in control of the new medium means more affluence and more democracy.

The end result is the same: the private sector takes over the medium from "below" (makes offers to the owners or operators of the medium that they cannot possibly refuse) - or from "above" (successful lobbying in the corridors of power leads to the legislated privatization of the medium).

Every privatization - especially that of a medium - provokes public opposition. There are (usually founded) suspicions that the interests of the public were compromised and sacrificed on the altar of commercialization and rating. Fears of monopolization and cartelization of the medium are evoked - and proven correct, in the long run. Otherwise, the concentration of control of the medium in a few hands is criticized. All these things do happen - but the pace is so slow that the initial apprehension is forgotten and public attention reverts to fresher issues.

Again, consider the precedent of the public airwaves.

A new Communications Act was legislated in the USA in 1934. It was meant to transform radio frequencies into a national resource to be sold to the private sector which will use it to transmit radio signals to receivers. In other words: the radio was passed on to private and commercial hands. Public radio was doomed to be marginalized.

From the radio to the Internet:

The American administration withdrew from its last major involvement in the Internet in April 1995, when the NSF ceased to finance some of the networks and, thus, privatized its hitherto heavy involvement in the Net.

The Communications Act of 1996 envisaged a form of "organized anarchy". It allowed media operators to invade each other's turf.

Phone companies were allowed to transmit video and cable companies were allowed to transmit telephony, for instance. This is all phased over a long period of time - still, it is a revolution whose magnitude is difficult to gauge and whose consequences defy imagination. It carries an equally momentous price tag - official censorship.

Merely "voluntary censorship", to be sure and coupled with toothless standardization and enforcement authorities - still, a censorship with its own institutions to boot. The private sector reacted by threatening litigation - but, beneath the surface it is caving in to pressure and temptation, constructing its own censorship codes both in the cable and in the internet media.

The third phase is ***Institutionalization***.

It is characterized by enhanced legislation. Legislators, on all levels, discover the medium and lurch at it passionately. Resources which were considered "free", suddenly are transformed to "national treasures not to be dispensed with cheaply, casually and with frivolity".

It is conceivable that certain parts of the Internet will be "nationalized" (for instance, in the form of a licensing requirement) and tendered to the private sector. Legislation may be enacted which will deal with permitted and disallowed content (obscenity? incitement? racial or gender bias?).

No medium in the USA (or elsewhere) has eschewed such legislation. There are sure to be demands to allocate time (or space, or software, or content, or hardware, or bandwidth) to "minorities", to "public affairs", to "community business". This is a tax that the business

sector will have to pay to fend off the eager legislator and his nuisance value.

All this is bound to lead to a monopolization of hosts and servers. The important broadcast channels will diminish in number and be subjected to severe content restrictions. Sites which will not succumb to these requirements - will be deleted or neutralized. Content guidelines (euphemism for censorship) exist, even as we write, in all major content providers (AOL, Yahoo, Lycos).

The last, determining, phase is ***The Bloodbath***.

This is the phase of consolidation. The number of players is severely reduced. The number of browser types is limited to 2-3 (Mozilla, Microsoft and which else?). Networks merge to form privately owned mega-networks. Servers merge to form hyper-servers run on supercomputers or computer farms. The number of ISPs is considerably diminished.

50 companies ruled the greater part of the media markets in the USA in 1983. The number in 1995 was 18. At the end of the century they numbered 6.

This is the stage when companies - fighting for financial survival - strive to acquire as many users/listeners/viewers as possible. The programming is dumbed down, aspiring to the lowest (and widest) common denominator. Shallow programming dominates as long as the bloodbath proceeds.

Speech

Scholars like J. L. Austin and H. P. Grice have suggested novel taxonomies of speech acts and linguistic constructs. The prevailing trend is to classify speech according to nits

functions - indicative, interrogative, imperative, expressive, performative, etc.

A better approach may be to classify sentences according to their relations and subject matter.

We suggest three classes of sentences:

Objective

Sentences pertaining or relating to OBJECTS. By "objects" we mean - tangible objects, abstract objects, and linguistic (or language) objects (for a discussion of this expanded meaning of "object" - see "Bestowed Existence").

The most intuitive objective speech is the descriptive, or informative, sentence. In this we also include ascriptions, examples, classifications, etc.

The expressive sentence is also objective since it pertains to (the inner state of) an object (usually, person or living thing) - "I feel sad".

Argumentative performatives (or expositives) are objective because they pertain to a change in the state of the object (person) making them. The very act of making the argumentative performative (a type of speech act) alters the state of the speaker. Examples of argumentative performatives: "I deny", "I claim that", "I conclude that".

Some exclamations are objective (when they describe the inner state of the exclaiming person) - "how wonderful (to me) this is!"

"Objective" sentences are not necessarily true or valid or sound sentences. If a sentence pertains to an object or

relates to it, whether true or false, valid or invalid, sound or unsound - it is objective.

Relational

Sentences pertaining or relating to relations between objects (a meta level which incorporates the objective).

Certain performatives are relational (scroll below for more).

Software is relational - and so are mathematics, physics, and logics. They all encode relations between objects.

The imperative sentence is relational because it deals with a desired relation between at least two objects (one of them usually a person) - "(you) go (to) home!"

Exclamations are, at times, relational, especially when they are in the imperative or want to draw attention to something - "look at this flower!"

Extractive

Interrogative sentences (such as the ones which characterize science, courts of law, or the press). Not every sentence which ends with a question mark is interrogative, of course.

Performative (or Speech Acts)

Sentences that effect a change in the state of an object, or alter his relations to other objects. Examples: "I surrender", "I bid", "I agree", and "I apologize". Uttering the performative sentence amounts to doing something, to irreversibly changing the state of the speaker and his relations with other objects.

Stereotypes

"The trouble with people is not that they don't know but that they know so much that ain't so."
Henry Wheeler Shaw

Do stereotypes usefully represent real knowledge or merely reflect counter-productive prejudice?

Stereotypes invariably refer in a generalized manner to - often arbitrary - groups of people, usually minorities. Stereotypes need not necessarily be derogatory or cautionary, though most of them are. The "noble savage" and the "wild savage" are both stereotypes. Indians in movies, note Ralph and Natasha Friar in their work titled "The Only Good Indian - The Hollywood Gospel" (1972) are overwhelmingly drunken, treacherous, unreliable, and childlike. Still, some of them are as portrayed as unrealistically "good".

But alcoholism among Native Americans - especially those crammed into reservations - is, indeed, more prevalent than among the general population. The stereotype conveys true and useful information about inebriation among Indians. Could its other descriptors be equally accurate?

It is hard to unambiguously define, let alone quantify, traits. At which point does self-centerdness become egotism or the pursuit of self-interest - treachery? What precisely constitutes childlike behavior? Some types of research cannot even be attempted due to the stifling censorship of political correctness. Endeavoring to answer a simple question like: "Do blacks in America really possess lower IQ's and, if so, is this deficiency

hereditary?" has landed many an American academic beyond the pale.

The two most castigated aspects of stereotypes are their generality and their prejudice. Implied in both criticisms is a lack of veracity and rigor of stereotypes. Yet, there is nothing wrong with generalizations per se. Science is constructed on such abstractions from private case to general rule. In historiography we discuss "the Romans" or "ancient Greeks" and characterize them as a group. "Nazi Germany", "Communist Russia", and "Revolutionary France" are all forms of groupspeak.

In an essay titled "Helping Students Understand Stereotyping" and published in the April 2001 issue of "Education Digest", Carlos Cortes suggest three differences between "group generalizations" and "stereotypes":

"Group generalizations are flexible and permeable to new, countervailing, knowledge - ideas, interpretations, and information that challenge or undermine current beliefs. Stereotypes are rigid and resistant to change even in the face of compelling new evidence.

Second, group generalizations incorporate intragroup heterogeneity while stereotypes foster intragroup homogeneity. Group generalizations embrace diversity - 'there are many kinds of Jews, tall and short, mean and generous, clever and stupid, black and white, rich and poor'. Stereotypes cast certain individuals as exceptions or deviants - 'though you are Jewish, you don't behave as a Jew would, you are different'.

Finally, while generalizations provide mere clues about group culture and behavior - stereotypes purport to proffer

immutable rules applicable to all the members of the group. Stereotypes develop easily, rigidify surreptitiously, and operate reflexively, providing simple, comfortable, convenient bases for making personal sense of the world. Because generalizations require greater attention, content flexibility, and nuance in application, they do not provide a stereotype's security blanket of permanent, inviolate, all-encompassing, perfectly reliable group knowledge."

It is commonly believed that stereotypes form the core of racism, sexism, homophobia, and other forms of xenophobia. Stereotypes, goes the refrain, determine the content and thrust of prejudices and propel their advocates to take action against minorities. There is a direct lineage, it is commonly held, between typecasting and lynching.

It is also claimed that pigeonholing reduces the quality of life, lowers the expectations, and curbs the accomplishments of its victims. The glass ceiling and the brass ceiling are pernicious phenomena engendered by stereotypes. The fate of many social policy issues - such as affirmative action, immigration quotas, police profiling, and gay service in the military - is determined by stereotypes rather than through informed opinion.

USA Today Magazine reported the findings of a survey of 1000 girls in grades three to twelve conducted by Harris Interactive for "Girls". Roughly half the respondents thought that boys and girls have the same abilities - compared to less than one third of boys. A small majority of the girls felt that "people think we are only interested in love and romance".

Somewhat less than two thirds of the girls were told not to brag about things they do well and were expected to spend the bulk of their time on housework and taking care of

younger children. Stereotypical thinking had a practical effect: girls who believe that they are as able as boys and face the same opportunities are way more likely to plan to go to college.

But do boys and girls have the same abilities? Absolutely not. Boys are better at spatial orientation and math. Girls are better at emotions and relationships. And do girls face the same opportunities as boys? It would be perplexing if they did, taking into account physiological, cognitive, emotional, and reproductive disparities - not to mention historical and cultural handicaps. It boils down to this politically incorrect statement: girls are not boys and never will be.

Still, there is a long stretch from "girls are not boys" to "girls are inferior to boys" and thence to "girls should be discriminated against or confined". Much separates stereotypes and generalizations from discriminatory practice.

Discrimination prevails against races, genders, religions, people with alternative lifestyles or sexual preferences, ethnic groups, the poor, the rich, professionals, and any other conceivable minority. It has little to do with stereotypes and a lot to do with societal and economic power matrices. Granted, most racists typecast blacks and Indians, Jews and Latinos. But typecasting in itself does not amount to racism, nor does it inevitably lead to discriminatory conduct.

In a multi-annual study titled "Economic Insecurity, Prejudicial Stereotypes, and Public Opinion on Immigration Policy", published by the Political Science Quarterly, the authors Peter Burns and James Gimpel substantiated the hypothesis that "economic self-interest

and symbolic prejudice have often been treated as rival explanations for attitudes on a wide variety of issues, but it is plausible that they are complementary on an issue such as immigration. This would be the case if prejudice were caused, at least partly, by economic insecurity."

A long list of scholarly papers demonstrate how racism - especially among the dispossessed, dislocated, and low-skilled - surges during times of economic hardship or social transition. Often there is a confluence of long-established racial and ethnic stereotypes with a growing sense of economic insecurity and social dislocation.

"Social Identity Theory" tells us that stereotypical prejudice is a form of compensatory narcissism. The acts of berating, demeaning, denigrating, and debasing others serve to enhance the perpetrators' self-esteem and regulate their labile sense of self-worth. It is vicarious "pride by proxy" - belonging to an "elite" group bestows superiority on all its members. Not surprisingly, education has some positive influence on racist attitudes and political ideology.

Having been entangled - sometimes unjustly - with bigotry and intolerance, the merits of stereotypes have often been overlooked.

In an age of information overload, "nutshell" stereotypes encapsulate information compactly and efficiently and thus possess an undeniable survival value. Admittedly, many stereotypes are self-reinforcing, self-fulfilling prophecies. A young black man confronted by a white supremacist may well respond violently and an Hispanic, unable to find a job, may end up is a street gang.

But this recursiveness does not detract from the usefulness

of stereotypes as "reality tests" and serviceable prognosticators. Blacks do commit crimes over and above their proportion in the general population. Though stereotypical in the extreme, it is a useful fact to know and act upon. Hence racial profiling.

Stereotypes - like fables - are often constructed around middle class morality and are prescriptive. They split the world into the irredeemably bad - the other, blacks, Jews, Hispanics, women, gay - and the flawlessly good, we, the purveyors of the stereotype. While expressly unrealistic, the stereotype teaches "what not to be" and "how not to behave". A by-product of this primitive rendition is segregation.

A large body of scholarship shows that proximity and familiarity actually polarize rather than ameliorate inter-ethnic and inter-racial tensions. Stereotypes minimize friction and violence by keeping minorities and the majority apart. Venting and vaunting substitute for vandalizing and worse. In time, as erstwhile minorities are gradually assimilated and new ones emerge, conflict is averted.

Moreover, though they frequently reflect underlying deleterious emotions - such as rage or envy - not all stereotypes are negative. Blacks are supposed to have superior musical and athletic skills. Jews are thought to be brainier in science and shrewder in business. Hispanics uphold family values and ethnic cohesion. Gays are sensitive and compassionate. And negative stereotypes are attached even to positive social roles - athletes are dumb and violent, soldiers inflexible and programmed.

Stereotypes are selective filters. Supporting data is hoarded and information to the contrary is ignored. One

way to shape stereotypes into effective coping strategies is to bombard their devotees with "exceptions", contexts, and alternative reasoning.

Blacks are good athletes because sports is one of the few egalitarian career paths open to them. Jews, historically excluded from all professions, crowded into science and business and specialized. If gays are indeed more sensitive or caring than the average perhaps it is because they have been repressed and persecuted for so long. Athletes are not prone to violence - violent athletes simply end up on TV more often. And soldiers have to act reflexively to survive in battle.

There is nothing wrong with stereotypes if they are embedded in reality and promote the understanding of social and historical processes. Western, multi-ethnic, pluralistic civilization celebrates diversity and the uniqueness and distinctiveness of its components. Stereotypes merely acknowledge this variety.

USA Today Magazine reported in January a survey of 800 adults, conducted last year by social psychology professors Amanda Diekman of Purdue University and Alice Eagly of Northwestern University. They found that far from being rigid and biased, stereotypes regarding the personality traits of men and women have changed dramatically to accurately reflect evolving gender roles.

Diekman noted that "women are perceived as having become much more assertive, independent, and competitive over the years... Our respondents - whether they were old enough to have witnessed it or not - recognized the role change that occurred when women began working outside the home in large numbers and the necessity of adopting characteristics that equip them to be

breadwinners."

String Theories

THE QUANTUM STRING - AN INTEGRATIVE APPROACH

Following is a series of essays which, together, constitute a detailed overview of string theories and their possible aftermath.

I, then, proceed to develop a few ideas regarding a possible integrative approach.

Strings

Strings are described as probabilistic ripples (waves) of spacetime (NOT in a quantum field) propagating through spacetime at the speed of light. From the point of view of an observer in a gravitational field, strings will appear to be point particles (Special Relativity). The same formalism used to describe ripples in quantum fields (i.e., elementary particles) is, therefore, applied.

Strings collapse (are resolved) and "stabilize" as folds, wrinkles, knots, or flaps of spacetime.

The vibrations of strings in string theories are their probabilities in this theory (described in a wave function).

The allowed, netted resonances (vibrations) of the strings are derived from sub-Planck length quantum fluctuations ("quantum foam"). One of these resonances yields the graviton.

Strings probabilistically vibrate in ALL modes at the same time (superposition) and their endpoints are interference

patterns.

D-branes are the probability fields of all possible vibrations.

The Universe

A 12 dimensional universe is postulated, with 9 space dimensions and 3 time dimensions.

Every "packet" of 3 spatial dimensions and 1 temporal dimension curls up and creates a Planck length size "curled Universe".

At every point, there are 2 curled up Universes and 1 expressed Universe (=the Universe as we know it).

The theory is symmetric in relation to all curled Universe ("curl-symmetric").

All the dimensions - whether in the expressed Universe (ours) or in the curled ones - are identical. But the curled Universes are the "branches", the worlds in the Many Worlds interpretation of Quantum Mechanics.

Such a 12 dimensional Universe is reducible to an 11 dimensional M Theory and, from there, to 10 dimensional string theories.

In the Appendix we study an alternative approach to Time:

A time quantum field theory is suggested. Time is produced in a non-scalar field by the exchange of a particle ("Chronon").

BY WAY OF INTRODUCTION

"There was a time when the newspapers said that only

twelve men understood the theory of relativity. I do not believe that there ever was such a time... On the other hand, I think it is safe to say that no one understands quantum mechanics... Do not keep saying to yourself, if you can possibly avoid it, 'But how can it be like that?', because you will get 'down the drain' into a blind alley from which nobody has yet escaped. Nobody knows how it can be like that."
R. P. Feynman (1967)

"The first processes, therefore, in the effectual studies of the sciences, must be ones of simplification and reduction of the results of previous investigations to a form in which the mind can grasp them."
J.C. Maxwell, On Faraday's lines of force

" ...conventional formulations of quantum theory, and of quantum field theory in particular, are unprofessionally vague and ambiguous. Professional theoretical physicists ought to be able to do better. Bohm has shown us a way."
John S. Bell, Speakable and Unspeakable in Quantum Mechanics

"It would seem that the theory [quantum mechanics] is exclusively concerned about 'results of measurement', and has nothing to say about anything else. What exactly qualifies some physical systems to play the role of 'measurer'? Was the wavefunction of the world waiting to jump for thousands of millions of years until a single-celled living creature appeared? Or did it have to wait a little longer, for some better qualified system ... with a Ph.D.? If the theory is to apply to anything but highly idealized laboratory operations, are we not obliged to admit that more or less 'measurement-like' processes are going on more or less all the time, more or less everywhere. Do we not have jumping then all the time?

The first charge against 'measurement', in the fundamental axioms of quantum mechanics, is that it anchors the shifty split of the world into 'system' and 'apparatus'. A second charge is that the word comes loaded with meaning from everyday life, meaning which is entirely inappropriate in the quantum context. When it is said that something is 'measured' it is difficult not to think of the result as referring to some pre-existing property of the object in question. This is to disregard Bohr's insistence that in quantum phenomena the apparatus as well as the system is essentially involved. If it were not so, how could we understand, for example, that 'measurement' of a component of 'angular momentum' ... in an arbitrarily chosen direction ... yields one of a discrete set of values? When one forgets the role of the apparatus, as the word 'measurement' makes all too likely, one despairs of ordinary logic ... hence 'quantum logic'. When one remembers the role of the apparatus, ordinary logic is just fine.
In other contexts, physicists have been able to take words from ordinary language and use them as technical terms with no great harm done. Take for example the 'strangeness', 'charm', and 'beauty' of elementary particle physics. No one is taken in by this 'baby talk' ... Would that it were so with 'measurement'. But in fact the word has had such a damaging effect on the discussion, that I think it should now be banned altogether in quantum mechanics."
J. S. Bell, Against "Measurement"

"Is it not clear from the smallness of the scintillation on the screen that we have to do with a particle? And is it not clear, from the diffraction and interference patterns, that the motion of the particle is directed by a wave? De Broglie showed in detail how the motion of a particle,

passing through just one of two holes in screen, could be influenced by waves propagating through both holes. And so influenced that the particle does not go where the waves cancel out, but is attracted to where they cooperate. This idea seems to me so natural and simple, to resolve the wave-particle dilemma in such a clear and ordinary way, that it is a great mystery to me that it was so generally ignored."
J. S. Bell, Speakable and Unspeakable in Quantum Mechanics

"...in physics the only observations we must consider are position observations, if only the positions of instrument pointers. It is a great merit of the de Broglie-Bohm picture to force us to consider this fact. If you make axioms, rather than definitions and theorems, about the "measurement" of anything else, then you commit redundancy and risk inconsistency."
J. S. Bell, Speakable and Unspeakable in Quantum Mechanics

"To outward appearance, the modern world was born of an anti religious movement: man becoming self-sufficient and reason supplanting belief. Our generation and the two that preceded it have heard little of but talk of the conflict between science and faith; indeed it seemed at one moment a foregone conclusion that the former was destined to take the place of the latter. ... After close on two centuries of passionate struggles, neither science nor faith has succeeded in discrediting its adversary.
On the contrary, it becomes obvious that neither can develop normally without the other. And the
reason is simple: the same life animates both. Neither in its impetus nor its achievements can science go to its limits without becoming tinged with mysticism and

charged with faith."
Pierre Thierry de Chardin, "The Phenomenon of Man"

A. *OVERVIEW OF STRING AND SUPERSTRING THEORIES*

String theories aim to unify two apparently disparate physical theories: QFT (Quantum Field Theory) and the General Relativity Theory GRT). QFT stipulates the exchange of point-like particles. These exchanges result in the emergence of the four physical forces (weak, strong, electromagnetic and gravity). As the energy of these interactions increases, the forces tend to merge until they become a single, unified force at very high energies. The pursuit of a Grand Unified Theory or, even, a Theory of Everything - is not a new phenomenon. Einstein's Special Theory of Relativity (SRT) (preceded by Maxwell) unified the electromagnetic forces. Glashow, Salam and Weinberg unified the electroweak forces. In the Standard Model (SM), the strong and electroweak forces attain the same values (i.e., are the same) at high energy and gravitation joins in at even higher energies.

GRT and QFT are mathematically interfaced. Macro-objects (dealt with in the GRT) tend to create infinite spacetime curvature when infinitely compressed (to become point particles). The result is a "quantum foam" which really reflects the probabilities of point particles. But relativistic QFT fails to account for gravity. It copes well with elementary particles but only in an environment with a vanishingly weak force of gravity. Some physicists tried to add a "graviton" (gravity force carrying particle) to QFT - and ended up with numerous singularities (particle interactions at a single point and at a zero distance).

Enter the strings. These are 1-dimensional (length) entities (compared to zero-dimensional points). They move across the surface their "worldsheet". They vibrate and each type of vibration is characterized by a number which we otherwise know as a quantum number (such as spin or mass). Thus, reach vibrational modes, with its distinct set of quantum number corresponds to a specific particle.

String theories strive to get rid of infinities and singularities (such as the aforementioned infinite curvature, or the infinities in the Feynman diagrams). They postulate the existence of matter-forming, minuscule, open or closed, strings with a given - and finite - length. The vibrations of these entities yields both the four elementary forces and four corresponding particles. in other words, particles are excitatory modes of these strings, which otherwise only float in spacetime. The string tension being related to its length, strings need to have a Planck length to be able to account for quantum gravity. One of these states of excitation is a particle with zero mass and 2 spin units - known in Quantum Theory of Gravity (QTG) as "graviton". Moreover, strings tend to curl (though, counterintuitively, they are wrapped around space rather than in it - very much like the topological chimeras the Mobius strip, or the Klein bottle). Mathematics dictate an 11-dimensional universe. Four of its dimensions have "opened" and become accessible to us. The other 7 remain curled up in a "Calabi-Yau space" in which strings vibrate. In later version of string theory (like the M-Theory), there is a 7-dimensional, curled up Calabi-Yau space wrapped on every 4-dimensional point in our universe. But Calabi-Yau spaces are not fixed entities. New ones can be created every time space is "torn" and "repairs" itself in a different curvature. Lastly, strings merge when they interact, which is very useful

mathematically-speaking. Technically speaking, one of 2 interacting strings "opens up" in an intermediate phase - and then closes up again.

But what is the contribution of this hidden, strange world and of the curling up solution to our understanding of the world?

String theories do not deal with the world as we know it. They apply in the Planck scale (where quantum gravity prevails). On the other hand, to be of any use, even conceptually, they must encompass matter (fermions). Originally, fermions are thought to have been paired with bosons (force conveying particles) in a super-symmetric, superstring world. Supersymmetry broke down and vanished from our expanding Universe. This necessitated the "elimination" of the extra-dimensions and hence their "compactification" (curling up).

Moreover, some string theories describe closed but openable strings - while others describe closed and NON-openable ones. To incorporate Quantum Mechanics (QM) fully, one needs to resort to outlandish 26 dimensional universes, etc.

Still, string theories are both mathematically simpler than anything else we have to offer - and powerfully explanatory.

We use Perturbation Theory (PT) To compute QM amplitudes. We simply add up contributions from all the orders of quantum processes. To be effective, contributions need to get smaller (until they become negligible) the "higher" we climb the order hierarchy. The computation of the first few diagrams should be yield an outcome asymptotic to "reality". This is necessary because

in point-like particle field theories, the number of diagrams required to describe higher orders grows exponentially and demands awesome computing power.

Not so in string theories. Holes and "handles" (protrusions) in the worldsheet replace the diagrams. Each PT order has one diagram - the worldsheet. This does not alleviate the mathematical complexity - solving a 2-handle worldsheet is no less excruciating than solving a classic PT diagram. But if we want to obtain complete knowledge about a quantum system, we need a non-perturbative theory. PT is good only as an approximation in certain circumstances (such as weak coupling).

B. *MORE ON THE INNER WORKINGS OF STRING THEORIES*

String vibrate. In other words, they change shape - but revert to their original form. Closed strings are bound by boundary conditions (such as the period of their vibration). Open strings also succumb to boundary conditions known as the Neumann and Dirichlet boundary conditions. Neumann allowed the end point of a string free movement - but with no loss of momentum to the outside. Dirichlet constrained its movement to one "plane" (or manifold) known as a D-brane or Dp-brane (the "p" stands for the number of spatial dimensions of the manifold). Thus, if a spacetime has 11 dimensions - of which 10 are spatial - it would have a D10 D-brane as its upper limit. p could be negative (-1) if all space and time coordinates are fixed (and "instanton"). When p=0, all the spatial coordinates are fixed, the endpoint is at a single spatial point (i.e., a particle). A D0-brane is what we know as a particle and a D1-brane would be a string. D-branes are mobile and interact with closed strings (and particles). Strings (such as the graviton) may open and "affix" their

endpoints on a D2-brane (during the interaction).

But these interactions are confined to bosons. When we add fermions to the cocktail, we get supersymmetry and pairs of fermions and bosons. When we try to construct a "supersymmetric" QFT, we need to add 6 dimensions to the 4 we are acquainted with. This contraption cancel the anomalous results we otherwise obtain. In terms of PT, we get only five consistent string theories: I, IIA, IIB, E8XE8 Heterotic, SO(32) Heterotic. In terms of weakly coupled PT, they appear very different. But, in reality, they are all aspects of a single string theory and are related by "string dualities" (i.e., different formalisms that describe the same physical phenomena).

C. ***A LITTLE HISTORY***

From its very inception in 1987, it was clear one of the gauge groups at the heart of E8XE8 is identical to the gauge group of the Standard Model (SM). Thus, matter in one E8 interacted through all the forces and their particles - and matter in the other E8 interacted only through gravity. This did nothing to explain why the breakdown of supersymmetry - and why the SM is so complex and muti-generational. Six of the 10 dimensions curled up into (non-observable) Planck length and compact 6-d balls attached to every 4-d point in our observable universe. This was a throwback to the neat mathematics of Kaluza-Klein. By compactifying 1 dimension in a 5-d universe, they were able to derive both GRT and electromagnetism (as a U(1) gauge theory of rotation around a circle).

We need to compactify the extra dimensions of (10-d and 11-d alike) superstring theories to get to our familiar universe. Various methods of doing this still leave us with a lot of supersymmetry. A few physicists believe that

supersymmetry is likely to emerge - even in our pedestrian 4-d world - at ultra high energies. Thus, in order to preserve a minimum of supersymmetry in our 4-d universe, we use Calabi-Yau (CY) manifolds (on which the extra dimensions are compactified) for low energies. A certain CY manifold even yields the transition from the big bang (10 or 11 dimensional) universe to our dimensions-poorer one.

D. ***DUALITIES***

The various string theories are facets of one underlying theory. Dualities are the "translation mechanisms" that bind them together. The T-duality relates theories with dimensions compactified on a circle with the radius R to theories whose dimensions are compactified on a circle with the radius 1/R. Thus, one's curled dimension is the other's uncurled one. The S-duality relates the coupling limits of the various theories. One's upper (strong coupling) limit becomes another's weak coupling limit. The celebrated M Theory is also a duality, in a way.

M Theory is not a string theory, strictly speaking. It is an 11-d supergravity with membranes and solitons (its 5-branes). Only when compactified does it yield a 10-d string theory (the IIA version, to be precise). It is not as counterintuitive as it sounds. If the 11th dimension is of finite length, the endpoints of a line segment define 9-dimensional boundaries (the 10th dimension is time). The intersection of an open membrane with these boundaries creates strings. We can safely say that the five string theories, on the one hand, and M Theory on the other hand constitute classical LIMITS. Perturbation theory was used to derive their corresponding quantum theories - but to little effect. the study of non-perturbative attributes (dualities, supersymmetry and so on) yielded much more

and led us to the conviction that a unified quantum theory underlies these myriad manifestations.

E. ***PARTICLES***

Every physical theory postulates physical entities, which are really nothing more than conventions of its formalism. The Standard Model (SM) uses fields. The physical properties of these fields (electric, magnetic, etc.) are very reminiscent of the physical properties of the now defunct pre-relativistic ether. Quantized momenta and energy (i.e., elementary particles) are conveyed as ripples in the field. A distinct field is assigned to each particle. Fields are directional. The SM adds scalar fields (=fields without direction) to account for the (directionless) masses of the particles. But scalar fields are as much a field as their non-scalar brethren. Hence the need to assign to them Higgs particles (bosons) as their quanta. SM is, therefore, an isotropy-preserving Quantum Field Theory (QFT).

The problem is that gravity is negligibly weak compared to the enormous energies (masses) of the Higgs, W, Z and Gluon particles. Their interactions with other fields are beyond the coupling strengths (measurement energies) of today's laboratories. The strong and electroweak forces get unified only at 10 to the 16th power GeV. Gravity - at 10 to the 18th power (though some theories suggest a lower limit). This is almost at the Planck scale of energy. There is an enormous gap between the mass of the Higgs particles (200 Gev) and these energies. No one knows why. Supersymmetric and "Technicolor" solutions suggest the existence of additional forces and particles that do not interact with the SM "zoo" at low energies.

But otherwise SM is one of the more successful theories in the history of physics. It renormalized QFT and, thus,

re-defined many physical constants. It also eliminated the infinities yielded by QFT calculations. Yet, it failed to renormalize a gravitational QFT.

The result is a schism between the physics of low energies and the physics of high and ultra-high energies. Particle theories look totally disparate depending on the energies of the reactions they study. But, luckily, the reactions of massive particles are negligible in low energies - so renormalizable QFT (e.g., SM) is a fair approximation, althesame. At low energies, the combination of Special Relativity Theory (SRT) and any quantum theory is indistinguishable from a renormalizable QFT. These are the fundaments of a possible unification. Unfortunately, these theories break down at high energy and, though very effective, they are far from being simple or aesthetic (i.e., classic). Too many interactions yielded by the formalism are arbitrarily suppressed below this or that energy threshold. Most of these suppressed interactions are figments of the imagination at the energy scales we are accustomed to or which are attainable in our labs. Not so gravitation - also a non-renormalizable, suppressed (though extremely weak) interaction. Other suppressed reactions threaten to unsettle the whole edifice - yielding such oddities as unstable photons, or neutrinos with masses.

Hence the intuitive appeal of string theories. The vibratory modes of strings appear to us as particles. Gravitation is finally made a part of a finite theory. The drawbacks are the extra-dimensions, which seem to unparsimoniously run contra to Occam's razor - and the outlandishly high energies in which they are supposed to reveal themselves (uncurl). M Theory tries to merge QFT with the classic string theories - but this alleviates only a few marginal

issues.

The more philosophically and aesthetically inclined reject the operationalism which characterizes modern physics ("if it works - I am not interested to know WHY it works or even HOW it works"). They demand to know what is the underlying PHYSICAL reality (or at least, physical PRINCIPLE). The great pre-QM (Quantum Mechanics) theories always sprang from such a principle. The general Relativity Theory (GRT) was founded on the principle of the equivalence (i.e., indistinguishability) of gravity and inertia. Even the SM is based on a gauge symmetry. Special Relativity Theory (space-time) constrains QFTs and is, therefore, their "principle". No one is quite sure about string theories.

Arguably, their most important contribution is to have dispensed with Perturbation Theory (PT). PT broke down quantum processes into intermediate stages and generated an "order of complexity". The contributions from simpler phases were computed and added up first, then the same treatment was accorded to the contributions of the more complex phases and so on. It worked with weak forces and many theories which postulate stronger forces (like some string theories) are reducible to PT-solvable theories. But, in general, PT is useless for intermediate and strong forces.

Another possible contribution - though highly theoretical at this stage - is that adding dimensions may act to reduce the energy levels at which grand unification (including gravity) is to be expected. But this is really speculative stuff. No one know how large these extra dimensions are. If too small, particles will be unable to vibrate in them. Admittedly, if sufficiently large, new particles may be discovered as well as new force conveyance modes

(including the way gravity is transmitted). But the mathematical fact is that the geometrical form of the curled dimensions determines the possible modes of vibration (i.e., which particle masses and charges are possible).

Strings also constitute a lower limit on quantum fluctuations. This, in due time and with a lot more work (and possibly a new formalism), may explain why our universe is the way it is. Unconstrained quantum fluctuations should have yielded a different universe with a different cosmological constant.

F. *THE MICRO AND THE MACRO*

Strings have two types of energy states, depending on the shape of space time. If curled (cylindrical) space-time is "fat" (let's say, the whole universe) there will be closely spaced energy states, which correspond to the number of waves (vibrations) of the string and its length, and widely spaced energy states, which correspond to the number of loops a string makes around curled (cylindrical) space-time (winding modes). If the curled (cylindrical) space time is "thin" (let's say a molecule), a mirror picture emerges. Obviously, in both cases - "fat" space-time and "thin" space-time - the same vibrations and winding states are observed. In other words, the microcosm yields the same physics as the macrocosm.

G. *BLACK HOLES*

String theory, which is supposed to incorporate quantum gravity, should offer insights regarding black holes. String theories make use of the General Relativity Theory (GRT) formalism and add to it specific matter fields. Thus, many classical black hole solutions satisfy string equations of

motion. In an effort to preserve some supersymmetry, superstring theory has devised its own black hole solutions (with D-branes, or "black branes", as the description of certain supersymmetric black holes). A match was even found between types of supersymmetric black holes and supergravity including greybody factors (frequency dependent corrections). String theorists have derived most of Hawking's (and Bekenstein's) work regarding the entropy of black holes from string theories.

This led to novel ways of thinking about strings. What if "open" strings were really closed ones with one part "hidden" behind a black brane? What if intersecting black branes wrapped around seven curled dimensions gave rise to black holes? The vanishing masses of black branes delineate a cosmological evolutionary tree - from a universe with one topology to another, with another topology. Our world may be the "default" universe on the path of least resistance and minimum energy from one universe to another.

H. ***FROM SUPERGRAVITY TO MEMBRANES - A RECAP***

The particles with half integer spins predicted by supersymmetry are nowhere to be found. Either supersymmetry is a wrong idea or the particles are too heavy (or too something) to be detected by us with our current equipment. The latter (particles too heavy) is possible only if supersymmetry has broken down (which is almost the same as saying that it is wrong). Had it existed, it would probably have encompassed gravity (as does the General Theory of Relativity) in the form of "supergravity". The non-supersymmetric equivalent of supergravity can be gravity as we know it. In terms of particles, supersymmetry in an 11-dimensional universe

talks about a supersymmetric gravitino and a spin 2 graviton.

Supersymmetric supergravity was supplanted by 10-dimensional superstring theory because it could not account for handedness in nature (i.e., the preference of left or right in spin direction and in other physical phenomena) and for many quantum effects. From there it was a short - and inevitable - way to membrane theories. Branes with "p" dimensions moved in worldvolumes with p+1 dimensions and wrapped around curled dimensions to produce strings. Strings are, therefore, the equivalents of branes. To be more precise, strongly interacting (10-dimensional) strings are the dual equivalent of weakly interacting five-branes (solitons) (Duff, Scientific American, February 1998). Later, a duality between solitonic and fundamental strings in 6 dimensions (the other 4 curled and the five-brane wrapped around them) was established and then dualities between strings from the 5 string theories. Duff's "duality of dualities" states that the T-duality of a solitonic string is the S-duality of the fundamental string and vice versa. In other words, what appears as the charge of one object can also be construed as the inversion of the length of another (and, hence, the size of the dimension). All these insights - pulled together by Witten - led to M Theory in 11 dimensions. Later on, matrix theories replaced traditional coordinates in space time with non-commutable matrices. In other words, in an effort to rigorously define M Theory (that is, merge quantum physics with gravity), space time itself has been "sacrificed" or "quantum theorized".

Suicide

Those who believe in the finality of death (i.e., that there is no after-life) – they are the ones who advocate suicide

and regard it as a matter of personal choice. On the other hand, those who firmly believe in some form of existence after corporeal death – they condemn suicide and judge it to be a major sin. Yet, rationally, the situation should have been reversed: it should have been easier for someone who believed in continuity after death to terminate this phase of existence on the way to the next. Those who faced void, finality, non-existence, vanishing – should have been greatly deterred by it and should have refrained even from entertaining the idea. Either the latter do not really believe what they profess to believe – or something is wrong with rationality. One would tend to suspect the former.

Suicide is very different from self sacrifice, avoidable martyrdom, engaging in life risking activities, refusal to prolong one's life through medical treatment, euthanasia, overdosing and self inflicted death that is the result of coercion. What is common to all these is the operational mode: a death caused by one's own actions. In all these behaviours, a foreknowledge of the risk of death is present coupled with its acceptance. But all else is so different that they cannot be regarded as belonging to the same class. Suicide is chiefly intended to terminate a life – the other acts are aimed at perpetuating, strengthening and defending values.

Those who commit suicide do so because they firmly believe in the finiteness of life and in the finality of death. They prefer termination to continuation. Yet, all the others, the observers of this phenomenon, are horrified by this preference. They abhor it. This has to do with out understanding of the meaning of life.

Ultimately, life has only meanings that we attribute and ascribe to it. Such a meaning can be external (God's plan)

or internal (meaning generated through arbitrary selection of a frame of reference). But, in any case, it must be actively selected, adopted and espoused. The difference is that, in the case of external meanings, we have no way to judge their validity and quality (is God's plan for us a good one or not?). We just "take them on" because they are big, all encompassing and of a good "source". A hyper-goal generated by a superstructural plan tends to lend meaning to our transient goals and structures by endowing them with the gift of eternity. Something eternal is always judged more meaningful than something temporal. If a thing of less or no value acquires value by becoming part of a thing eternal – than the meaning and value reside with the quality of being eternal – not with the thing thus endowed. It is not a question of success. Plans temporal are as successfully implemented as designs eternal. Actually, there is no meaning to the question: is this eternal plan / process / design successful because success is a temporal thing, linked to endeavours that have clear beginnings and ends.

This, therefore, is the first requirement: our life can become meaningful only by integrating into a thing, a process, a being eternal. In other words, continuity (the temporal image of eternity, to paraphrase a great philosopher) is of the essence. Terminating our life at will renders them meaningless. A natural termination of our life is naturally preordained. A natural death is part and parcel of the very eternal process, thing or being which lends meaning to life. To die naturally is to become part of an eternity, a cycle, which goes on forever of life, death and renewal. This cyclic view of life and the creation is inevitable within any thought system, which incorporates a notion of eternity. Because everything is possible given an eternal amount of time – so are resurrection and

reincarnation, the afterlife, hell and other beliefs adhered to by the eternal lot.

Sidgwick raised the second requirement and with certain modifications by other philosophers, it reads: to begin to appreciate values and meanings, a consciousness (intelligence) must exist. True, the value or meaning must reside in or pertain to a thing outside the consciousness / intelligence. But, even then, only conscious, intelligent people will be able to appreciate it.

We can fuse the two views: the meaning of life is the consequence of their being part of some eternal goal, plan, process, thing, or being. Whether this holds true or does not – a consciousness is called for in order to appreciate life's meaning. Life is meaningless in the absence of consciousness or intelligence. Suicide flies in the face of both requirements: it is a clear and present demonstration of the transience of life (the negation of the NATURAL eternal cycles or processes). It also eliminates the consciousness and intelligence that could have judged life to have been meaningful had it survived. Actually, this very consciousness / intelligence decides, in the case of suicide, that life has no meaning whatsoever. To a very large extent, the meaning of life is perceived to be a collective matter of conformity. Suicide is a statement, writ in blood, that the community is wrong, that life is meaningless and final (otherwise, the suicide would not have been committed).

This is where life ends and social judgement commences. Society cannot admit that it is against freedom of expression (suicide is, after all, a statement). It never could. It always preferred to cast the suicides in the role of criminals (and, therefore, bereft of any or many civil rights). According to still prevailing views, the suicide

violates unwritten contracts with himself, with others (society) and, many might add, with God (or with Nature with a capital N). Thomas Aquinas said that suicide was not only unnatural (organisms strive to survive, not to self annihilate) – but it also adversely affects the community and violates God's property rights. The latter argument is interesting: God is supposed to own the soul and it is a gift (in Jewish writings, a deposit) to the individual. A suicide, therefore, has to do with the abuse or misuse of God's possessions, temporarily lodged in a corporeal mansion. This implies that suicide affects the eternal, immutable soul. Aquinas refrains from elaborating exactly how a distinctly physical and material act alters the structure and / or the properties of something as ethereal as the soul. Hundreds of years later, Blackstone, the codifier of British Law, concurred. The state, according to this juridical mind, has a right to prevent and to punish for suicide and for attempted suicide. Suicide is self-murder, he wrote, and, therefore, a grave felony. In certain countries, this still is the case. In Israel, for instance, a soldier is considered to be "army property" and any attempted suicide is severely punished as being "attempt at corrupting army possessions". Indeed, this is paternalism at its worst, the kind that objectifies its subjects. People are treated as possessions in this malignant mutation of benevolence. Such paternalism acts against adults expressing fully informed consent. It is an explicit threat to autonomy, freedom and privacy. Rational, fully competent adults should be spared this form of state intervention. It served as a magnificent tool for the suppression of dissidence in places like Soviet Russia and Nazi Germany. Mostly, it tends to breed "victimless crimes". Gamblers, homosexuals, communists, suicides – the list is long. All have been "protected from themselves" by Big Brothers in disguise.

Wherever humans possess a right – there is a correlative obligation not to act in a way that will prevent the exercise of such right, whether actively (preventing it), or passively (reporting it). In many cases, not only is suicide consented to by a competent adult (in full possession of his faculties) – it also increases utility both for the individual involved and for society. The only exception is, of course, where minors or incompetent adults (the mentally retarded, the mentally insane, etc.) are involved. Then a paternalistic obligation seems to exist. I use the cautious term "seems" because life is such a basic and deep set phenomenon that even the incompetents can fully gauge its significance and make "informed" decisions, in my view. In any case, no one is better able to evaluate the quality of life (and the ensuing justifications of a suicide) of a mentally incompetent person – than that person himself.

The paternalists claim that no competent adult will ever decide to commit suicide. No one in "his right mind" will elect this option. This contention is, of course, obliterated both by history and by psychology. But a derivative argument seems to be more forceful. Some people whose suicides were prevented felt very happy that they were. They felt elated to have the gift of life back. Isn't this sufficient a reason to intervene? Absolutely, not. All of us are engaged in making irreversible decisions. For some of these decisions, we are likely to pay very dearly. Is this a reason to stop us from making them? Should the state be allowed to prevent a couple from marrying because of genetic incompatibility? Should an overpopulated country institute forced abortions? Should smoking be banned for the higher risk groups? The answers seem to be clear and negative. There is a double moral standard when it comes to suicide. People are permitted to destroy their lives only

in certain prescribed ways.

And if the very notion of suicide is immoral, even criminal – why stop at individuals? Why not apply the same prohibition to political organizations (such as the Yugoslav Federation or the USSR or East Germany or Czechoslovakia, to mention four recent examples)? To groups of people? To institutions, corporations, funds, not for profit organizations, international organizations and so on? This fast deteriorates to the land of absurdities, long inhabited by the opponents of suicide.

Superman (Nietzsche)

Mankind is at an unprecedented technological crossroads. The confluence of telecommunications, mass transport, global computer networks and the mass media is unique in the annals of human ingenuity. That Maknind is about to be transformed is beyond dispute. The question is: "What will succeed Man, what will follow humanity?". Is it merely a matter of an adaptive reaction in the form of a new culture (as I have suggested in our previous dialogue - "The Law of Technology")? Or will will it take a new RACE, a new SPECIES to respond to these emerging challenges, as you have wondered in the same exchange.

Mankind can be surpassed by extension, by simulation, by emulation and by exceeding.

Briefly:

Man can extend his capacities - physical and mental - through the use of technology. He can extend his brain (computers), his legs (vehicles and air transport), his eyes (microscopes, telescopes) - etc. When these gadgets are miniaturized to the point of being integrated in the human

body and even becoming part of the genetic material - will we have a new species? If we install an artificially manufactured carbon-DNA chip in the brain that contains all the data in the world, allows for instant communication and coordination with other humans and replicates itself (so that it is automatically a part of every human embryo) - are we then turned into ant colonies?

Man can simulate other species and incorporate the simulating behaviours as well as their products in his genetic baggage so that it is passed on to future generations. If the simulation is sufficiently pervasive and serves to dramatically alter substantial human behaviours and biochemical processes (including the biochemistry of the brain) - will we then be considered an altogether different species?

If all humans were to suddenly and radically diverge from current patterns of behaviour and emulate others - in other words, if these future humans were absolutely unrecognizable by us as humans - would we still consider them human? Is the definition of species a matter of sheer biology? After all, the evolution of Mankind is biological only in small part. The human race is evolving culturally (by tansmitting what Dawkins calls "memes" rather than the good old genes). Shouldn't we be defined more by our civilization than by our chromosomes? And if a future civilization is sufficiently at odds with our current ones - wouldn't we be justified in saying that a new human species has been born?

Finally, Man can surpass and overcome humself by exceeding himself - morally and ethically. Is Mankind substantially altered by the adoption of different moral standards? Or by the decision to forgo moral standards (in favour of the truth, for example)? What defining role does

morality play in the definition, differentiation and distinction of our species?

In a relatively short period of time (less than 7000 years) Man has experienced three traumatic shifts in self-perception (in other words, in his identity and definition). At the beginning of this period, Man was helpless, in awe, phobic, terrified, submissive, terrorized and controlled by the Universe (as he perceived it). He was one part of nature sharing it with many other beings, in constant competition for scarce resources, subject to a permanent threat of annihilation. Then - with the advent of monotheistic religions and pre-modern science and technology - Man became the self-appointed and self-proclaimed crowning achievement of the universe. Man was the last, most developed, most deserving link in a chain. He was the centre and at the centre. Everything revolved around him. It was a narcissistic phase. This phase was followed by the disillusionment and sobering up wrought by modern science. Man - once again - became just one element of nature, dependent upon his environment, competing for scarce resources, in risk of nuclear, or environmental annihilation. Three traumas. Three shocks.

Nietzsche was the harbinger of the backlash - the Fourth Cycle. Mankind is again about to declare itself the crown of creation, the source of all values (contra to Judeo-Christian-Islamic values), subjugator and master of nature (with the aid of modern technologies). It is a narcissistic rebellion which is bound to involve all the known psychological defence mechanisms. And it is likely to take place on all four dimensions: by extension, by simulation, by emulation and by exceeding.

Let us start with the Nietzschean concept of overcoming:

the re-invention of morality with (Over-)Man at its centre. This is what I call "exceeding". Allow me to quote myself:

"Finally, Man can surpass and overcome himself by exceeding himself - morally and ethically. Is Mankind substantially altered by the adoption of different moral standards? Or by the decision to forgo moral standards (in favour of the truth, for example)? What defining role does morality play in the definition, differentiation and distinction of our species?"

Nietzsche's Overman is a challenge to society as a whole and to its values and value systems in particular. The latter are considered by Nietzsche to be obstacles to growth, abstract fantasies which contribute nothing positive to humanity's struggle to survive. Nietzsche is not against values and value systems as such - but against SPECIFIC values, the Judaeo-Christian ones. It relies on a transcendental, immutable, objective source of supreme, omniscient, long term benevolent source (God). Because God (an irrelevant human construct) is a-human (humans are not omniscience and omnipotent) his values are inhuman and irrelevant to our existence. They hamper the fulfilment of our potential as humans. Enter the Overman. He is a human being who generates values in accordance with data that he collects from his environment. He employs his intuition (regarding good and evil) to form values and then tests them empirically and without prejudice. Needless to say that this future human does not resort to contraptions such as the after-life or to a denial of his drives and needs in the gratification of which he takes great pleasure. In other words, the Overman is not ascetic and does not deny his self in order to alleviate his suffering by re-interpreting it ("suffering in this world is rewarded in the afterlife" as institutionalized religions are

wont to say). The Overman dispenses with guilt and shame as anti-nihilistic devices. Feeling negative about oneself the pre-Overman Man is unable to joyously and uninhibitedly materialize the full range of his potentials. The ensuing frustration and repressed aggression weaken Man both physically and psychologically.

So, the Overman or Superman is NOT a post-human being. It IS a human being just like you and I but with different values. It is really an interpretative principle, an exegesis of reality, a unified theory of the meaning and fullness of being human. He has no authority outside himself, no values "out there" and fully trusts himself to tell good from evil. Simply: that which works, promotes his welfare and happiness and helps him realize his full range of potentials - is good. And everything - including values and the Overman himself - everything - is transitory, contingent, replaceable, changeable and subject to the continuous scrutiny of Darwinian natural selection. The fact that the Superman does NOT take himself and his place in the universe as granted is precisely what "overcoming" means. The Overman co-exists with the weaker and the more ignorant specimen of Mankind. Actually, the Overmen are destined to LEAD the rest of humanity and to guide it. They guide it in light of their values: self-realization, survival in strength, continual re-invention, etc. Overcoming is not only a process or a mechanism - it is also the meaning of life itself. It constitutes the reason to live.

Paradoxically, the Superman is a very social creature. He regards humanity as a bridge between the current Man or Overman and the future one. Since there is no way of predicting at birth who will end up being the next Man - life is sacred and overcoming becomes a collective effort

and a social enterprise. Creation (the "will's joy") - the Superman's main and constant activity - is meaningless in the absence of a context.

Even if we ignore for a minute the strong RELIGIOUS overtones and undertones of Nietzsche's Overman belief-system - it is clear that Nietzsche provides us with no prediction regarding the future of Mankind. He simply analyses the psychological makeup of leaders and contrasts it with the superstitious, herd-like, self-defeating values of the masses. Nietzsche was vindicated by the hedonism and individualism of the 20th century. Nazi Germany was the grossly malignant form of "Nietzscheanism".

We have to look somewhere else for the future Mankind.

I wrote: "Man can extend his capacities - physical and mental - through the use of technology. He can extend his brain (computers), his legs (vehicles and air transport), his eyes (microscopes, telescopes) - etc. When these gadgets are miniaturized to the point of being integrated in the human body and even becoming part of the genetic material - will we have a new species? If we install an artificially manufactured carbon-DNA chip in the brain that contains all the data in the world, allows for instant communication and coordination with other humans and replicates itself (so that it is automatically a part of every human embryo) - are we then turned into ant colonies?"

To this I can add:

Teleportation is the re-assembly of the atoms constituting a human being in accordance with a data matrix in a remote location. Let us assume that the mental state of the teleported can be re-constructed. Will it be the "same"

person? What if we teleport whole communities? What if we were to send such "personality matrices" by 3-D fax? What if we were able to fully transplant brains - who is the resulting human: the recipient or the donor? What about cloning? What if we could tape and record the full range of mental states (thoughts, dreams, emotions) and play them back to the same person or to another human being? What about cyborgs who are controlled by the machine part of the hybrid organism? How will "human" be defined if all brains were to be connected to a central brain and subordinated to it partially or wholly? This sci-fi list can be extended indefinitely. It serves only to show how tenuous and unreliable is the very definition of "being human".

We cannot begin to contemplate the question "what will supplant humanity as we know it" without first FULLY answering the question: "what IS humanity?". What are the immutable and irreducible elements of "being human"? The elements whose alteration - let alone elimination - will make the difference between "being human" and "not being human". These elements we have to isolate before we can proceed meaningfully.

The big flaw in the arguments of philosopher-anthropolgists (from Montaigne to Nietzsche) - whether prescriptive or descriptive - is that they didn't seem to have asked themselves what was it that they were studying. I am not referring to a phenomenology of humans (their physiology, their social organization, their behavioural codes). There is a veritable mountain ridge of material composed based on evidence collected from observations of homo sapiens. But what IS homo sapiens? WHAT is being observed?

Consider the following: would you have still classified me

as human had I been transformed to pure (though structured) energy, devoid of any physical aspect, attribute, or dimension? I doubt it. We feel so ill at ease with non-body manifestations of existence that we try to anthropomorphesize God Himself and to materialize ghosts. God is "angry" or "vengeful" or (more rarely) "forgiving". Thus He is made human. Moreover, He is made corporeal. Anger or vengeance are meaningless bereft of their physical aspect and physiological association.

But what about the mind? Surely, if there were a way to "preserve" the mind in an appropriate container (which would also allow for interactions) - that mind would have been considered human. Not entirely, it seems. IT would have been considered to have human attributes or characteristics (intelligence, sense of humour) - but it would NOT have been considered to be an HUMAN. It would have been impossible to fall in love with IT, for instance.

So, an interesting distinction emerges between the property of BEING HUMAN (a universal) and the TROPES (the unique properties of) particular human beings. A disembodied mind CAN be human - and so can a particularly clever dog or robot (the source of the artificial intelligence conundrum). But nothing can be a particular human being - except that particular human being, body and all. This sounds confusing but it really is a simple and straightforward distinction. To be a particular instance of Mankind, the object needs to possess ALL the attributes of being human plus his tropes (body of a specific shape and chemistry, a specific DNA, intelligence and so on). But being human is a universal and thus lends itself to other objects even though they do not possess the

tropes of the particular. To put it differently: all the instances of "being human" (all humans and objects which can be considered human - such as disembodied minds, Stephen Hawking, Homo Australopithecus and future Turing Tested computers) share the universal and are distinguished from each other only by their tropes. "Being Human" applies to a FAMILY of objects - Man being only ONE of them. Humans are the objects that possess ALL the traits and attributes of the universal as well as tropes. Humans are, therefore, the complete (not to be confused with "perfect") embodiment of the universal "being human". Intelligent robots, clever parrots and so on are also human but only partly so.

Isn't this scholastic rubbish? thus defined even a broom would be somewhat human.

Indeed, a broom IS somewhat "human". And so is a dolphin. The Cartesian division of the world to observer and observed is a convenient but misleading tool of abstraction. Humans are part of nature and the products of humans are part of nature and part of humanity. A pacemaker is an integral part of its owners no less than the owner's corneas. Moreover, it represents millennia of accumulated human knowledge and endeavour. It IS human. Many products of human civilization are either anthropomorphic or extension of humans. Mankind has often confused its functional capacity to alter ELEMENTS in nature - with an alleged (and totally mythical) capacity to modify NATURE itself.

Why all this sophistry? Because I think that it is meaningless to discuss the surpassing of Man (the "next" human race) in ideal isolation. We need to discuss (1) the future of nature, (2) the future of the biological evolution of Mankind (genes), (3) the future of social evolution

(memes) as well as (4) the future of other - less complete or comprehensive - members of the human family (like artificial intelligence machines) - and then we need to discuss the interactions between all these - before we can say anything meaningful about the future of Mankind. The two common mistakes (Man as another kind of animal - the result of evolution - and Man as the crown of creation - unrelated to other animals) lead us nowhere. We must adopt a mixture of the two.

Let me embark on this four chaptered agenda by studying biological evolution.

With the advent of genetic engineering, humans have acquired the ability to effect phyletic (species-forming) evolution as well as to profoundly enhance the ancient skill of phenetic (or ecotypic) evolution (tinkering with the properties of individuals within a species). This is a ground shaking development. It changes the very rules of the game. Nature itself is an old hand at phyletic evolution - but nature is presumed to lack intelligence, introspection, purpose and time horizons. In other words, nature is non-purposive in its actions - it is largely random. It is eternal and "takes its time" in its "pursuit" of trials and errors. It is not intelligent and, therefore, acts with "brute force", conducting its "experiments" on entire populations and gene pools. It is not introspective - so it possesses no model of its own actions in relation to any external framework (=it recognizes no external framework, it possesses no meaning). It is its own "selection filter" - it subjects the products of its processes to itself as the ultimate test. The survivability of a new species created by nature is tested by subjecting the naturally-fostered new species to nature itself (=to environmental stimuli) as the only and ultimate arbiter.

Man's intervention in its own phenetic evolution and in the phenetic and phyletic evolution of other species is both guaranteed (it is an explicitly stated aim) and guaranteed to be un-natural. Man is purposive, introspective, intelligent and temporally finite. If we adopt the position that nature is infinitely lacking in intelligence and that Man is only finitely intelligence and generally unwise - then genetic engineering and biotechnology spell trouble.

Luckily, two obstacles stand in the way of rampant experimentation with human genetics (with the exception of rogue scientists and madmen dictators). One is the consensus that Man's phyletic evolution should be left alone. The other is the fact that both human phenetic and phyletic evolution is on-going. Man's phenetic evolution has been somewhat arrested by human culture and civilization which rendered ecotypic evolution inefficient by comparison. Culturation is a much faster, adaptable, adaptative, efficacious and specific set of processes than the slow-grinding, oft-erring, dumb phenetic evolution. To use Dawkins' terminology, adaptation enhancing "memes" are more easily communicable and more error-free than mutating genes. But evolution IS on-going. As Man invades new ecological niches (such as space) - his evolution into a general-purpose, non-specific animal is likely to continue apace.

Of course, the real menace lies in the breakdown of the current consensus. What if certain people did decide to create a new human sub-species or species? Philosophically, they would just be accelerating Nature's labours. If the new-fangled species is suitably adapted to its environmental niches it will survive and, perhaps, prevail. If not - it will perish. Yet, this is an erroneous

view. Accelerating Nature is not a mere quantitative issue - it is also a qualitative one. Having two concurrent speeds or "clocks" of evolution can lead to biological disasters. Polynesian islanders were wiped out by diseases imported from Europe, for instance. The whole of humanity can and will be wiped out by a new organism if not properly (=genetically) protected against it. Hence the contemporary mass hysteria with genetically modified food. Culture will be the first to adapt to the presence of such an ominous presence - but culture often reacts dysfunctionally and in a manner which exacerbates the problem. Consider Europe's reaction to the plague in the 14th century. Genetic mutations will occur but they require thousands of years and do not constitute an adequately adaptative response. Genetic engineering unchecked can lead to genetic annihilation. The precedent of nuclear weapons is encouraging - people succeeded in keeping their fingers off the red button. But genetic mutations are surreptitious and impossible to control. It is a tough challenge.

In his dreams of electric sheep, Man is drawn inexorably to his technological alter-ego. A surrealistic landscape of broken Bosch nightmares and Dali clocks, in which Man tiptoes, on the verge of a revelation, with the anticipatory anxiety of love. We are not alone. We have been looking to the stars for company and, all that time, our companions were locked in the dungeons of our minds, craving to exit to this world, a stage. We are designing the demise of our own uniqueness. We, hitherto the only humans, bring forth intelligent, new breeds of Man, metal sub-species, the wired stock, a gene pool of bits of bytes. We shall inherit the earth with them. Humans of flesh and blood and humans of silicon and glass. A network of old human versions and new human members (formerly

known as "machines") - this is the future. This has always been the way of nature. Our bodies are giant colonies of smaller organisms, some of them formerly completely independent (the mitochondria). Organisms are the results of stable equilibrium-symbiosis permeated by a common mind with common goals and common means of achieving them. In this sense, the emerging human-technological complex is a NEW ORGANISM with the internet as its evolving central nervous system. Leaving Earth for space would be the equivalent of birth (remember the Gaia hypothesis according to which Earth herself is an organism)? Cyborgs (in the deeper sense of the world - not the pop culture half baked images) will populate new niches (moons and planets and other galaxies and inter-planetary and inter-galactic spaces). Long before Man evolves into another animal through genetic mutations and genetic engineering - he will integrate with technology into an awesome new species. It is absolutely conceivable to have self-replicating technologies embedded in human DNA, complete with randomly induced mutations. You mentioned "Blade" - I counter with "Blade Runner", a world inhabited by humans and cyborgs, indistinguishable from each other.

The cycborgs of the future will be intimately and very finely integrated. Blood flooded brains will access, almost telepathically (through implanted tiny wireless transmitters and receivers) the entire network of other brains and machines. They will extract information, contribute, deposit data and analyses, collaborate, engage and disengage at will. An intelligent and non-automatic ant colony, an introspective, feedback generating beehive, a swarm of ever growing complexity. Computing will be all-pervasive and incredibly tiny by today's standards - virtually invisible. It will form an inseparable part of

human bodies and minds. New types of humans will be constantly designed to effectively counter nature's challenges through flexible diversity. Adapting to new niches - a toddler's occupation until now - will have become a full fledged science. The Universe will present trillions of environmental niche options where mere millions existed on Earth. A qualitative shift in our ability to cope with a cosmological future - requires a cosmological shift in the very definition of humanity. This definition must be expanded to include the products of humanity (e.g., technology).

Before long, humans will design and define nature itself. Whereas until now we adapted very limited aspects of nature to our needs - accepting as inevitable the bigger, over-riding parameters as constraints - the convergence of all breeds of humanity will endow Mankind with the power to destroy and construct nature itself. Man will most certainly be able to blow stars to smithereens, to deflect suns from their orbits, to harness planets and carry them along, to deform the very fabric of space and time. Man will invent new species, create new life, suspend death, design intelligence. In other words, God - killed by Man - will be re-incarnated in Man. Nothing less than being God will secure Mankind's future.

It is, therefore, both futile and meaningless to ask how will Nature's future course affect the surpassing of Man. The surpassing of Man is, by its very definition, the surpassing of Nature itself, its manipulation and control, its re-definition and modification, its abolition and resurrection, its design and re-combination. The surpassing of Man's nature is the birth of man-made nature.

The big question is how will culture - this most flexible of

mechanisms of adaptation - react to these tectonic shifts?

The dilemma's horns - magic versus culture. Technology is nothing but an instrument, a tool, a convenience. It has no intrinsic value divorced from this dilemma. It IS an elementary power unleashed. A natural manifestation - everything Man does is natural. But it secondary is to the real, conflicting camps in this Armageddon: magic versus culture. Magic versus culture - we should repeat this as an old-new mantra, as the plasma ejected from the supernova that our unconscious has become. People were terrified of nuclear weapons - and all the time this fundamental, savage battle was in the background, a battle much more decisive as far as the future of our race is concerned.

Because this is what it boils down to, this is the Hobson's choice we are faced with, this is the horror that we must confront:

If the only way to preserve our civilization is to de-humanize it - should we agree - or is it better to die? If the propagation of our culture, our world, our genetic material, our memory, our history - means that Man as we have known him hitherto will be no more or shall become only one of many human races - should we ink this Faustian deal?

Man, as he is, cannot survive if science and technology move on to become magic (as they have been doing since 1905). Should the larva sacrifice itself to become a butterfly? Is there a cultural, racial and collective after-life? Are we asked to commit suicide or just to dream differently?

All human civilizations till now have been anthropomorphic. There simply were no other human

forms around and the technology to spawn such new races was absent. The universe was deterministic, uniform, isotropic and single - a "human-size" warm abode. Einstein, quantum mechanics, astrophysics, particle physics, string theory - expelled us from this cosy paradise into a dark universe with anti-matter, exploding supernovas, cold spinning neutron stars and ominous black holes. Hidden dimensions and parallel, shadow universes complete the nightmarish quality of modern science. The trauma is still fresh and biblical in proportion. Biology is where physics was pre-Einstein and is about to cast us into an outer darkness inhabited by genetic demons far more minacious than anything physics has ever offered. Artificial intelligence will complete what Copernicus has started: Man denuded of his former glory as the crowned centre of creation. Not only is our world not the centre of a universe with a zillion stars - we are likely not the only intelligent or even human race around. Our computers and our robots will shortly join us. A long awaited meeting with aliens is fast becoming certainty the more planets we discover in distant systems.

But all this - while mind boggling - is NOT magic.

What introduced magic into our lives - really and practically and daily - is the Internet. Magic is another word for INTERCONNECTEDNESS. Event A causes (=is connected to) Event B without any linearly traceable or reconstructible CHAIN of causes and effects. An Indra's Net - one pebble lifted - all pebbles move. Chaos theory reduced to its now (in)famous "butterfly causes hurricane" illustration. Fractals which contain themselves in regression (though not infinite). The equality of all points in a network. Magic is all about NETWORKS and networking - and so is the Internet.

The more miniaturization, processing speed and computing power - the more we asymptotically approximate magic. Technology now converges with magic - it is a confluence of all our dreams and all our nightmares gushing forth, foaming and sparkling and exploding in amazingly colourful jets and rainbows. It is a new promise - but not of divine origin. It is OUR promise to ourselves.

And it is in this promise that the threat lies. Magic accepts no exclusivity (for instance, of intelligent forms of life). Magic accepts no linearity (as in the idea of progress or of TIME or of entropy). Magic accepts no hierarchy (as in West versus East, or Manager versus Employee and the other hierarchies which make up our human world). Magic accepts no causation, no idealization (as an idealized observer), no explanations. Magic demands simultaneity - science abhors it. The idea of magic is too much of a revolution for the human mind - precisely because it is so intuitively FAMILIAR, it is so basic and primordial. To live magically, one must get to really know oneself. But culture and civilization were invented to DENY the self, to HIDE it, to FALSIFY it, to DISTORT it. So, magic is anathema to culture. The two CANNOT co-exist. But Man has scarcely existed without some kind of culture. Hence the immensity of the challenge.

Which brings us full circle to Nietzsche and his surpassing. It is an overcoming of CULTURE that he is talking about - and a reversion to the older arts of intuition and magic. The ubermensch is a natural person in the fullest sense. It is not that he is a savage - on the contrary, he is supremely erudite. It is not that he is impolite, aggressive, violent - he is none of these things. But he is the ultimate authority, his own law-setter, an intuitive

genius and, by all means, a magician.

Superstitions

"The most beautiful experience we can have is the mysterious. It is the fundamental emotion that stands at the cradle of true art and true science."

Albert Einstein, The World as I See It, 1931

The debate between realism and anti-realism is, at least, a century old. Does Science describe the real world - or are its theories true only within a certain conceptual framework? Is science only instrumental or empirically adequate or is there more to it than that?

The current - mythological - image of scientific enquiry is as follows:

Without resorting to reality, one can, given infinite time and resources, produce all conceivable theories. One of these theories is bound to be the "truth". To decide among them, scientists conduct experiments and compare their results to predictions yielded by the theories. A theory is falsified when one or more of its predictions fails. No amount of positive results - i.e., outcomes that confirm the theory's predictions - can "prove right" a theory. Theories can only be proven false by that great arbiter, reality.

Jose Ortega y Gasset said (in an unrelated exchange) that all ideas stem from pre-rational beliefs. William James concurred by saying that accepting a truth often requires an act of will which goes beyond facts and into the realm of feelings. Maybe so, but there is little doubt today that beliefs are somehow involved in the formation of many scientific ideas, if not of the very endeavor of Science.

After all, Science is a human activity and humans always believe that things exist (=are true) or could be true.

A distinction is traditionally made between believing in something's existence, truth, value of appropriateness (this is the way that it ought to be) - and believing that something. The latter is a propositional attitude: we think that something, we wish that something, we feel that something and we believe that something. Believing in A and believing that A - are different.

It is reasonable to assume that belief is a limited affair. Few of us would tend to believe in contradictions and falsehoods. Catholic theologians talk about explicit belief (in something which is known to the believer to be true) versus implicit one (in the known consequences of something whose truth cannot be known). Truly, we believe in the probability of something (we, thus, express an opinion) - or in its certain existence (truth).

All humans believe in the existence of connections or relationships between things. This is not something which can be proven or proven false (to use Popper's test). That things consistently follow each other does not prove they are related in any objective, "real", manner - except in our minds. This belief in some order (if we define order as permanent relations between separate physical or abstract entities) permeates both Science and Superstition. They both believe that there must be - and is - a connection between things out there.

Science limits itself and believes that only certain entities inter-relate within well defined conceptual frames (called theories). Not everything has the potential to connect to everything else. Entities are discriminated, differentiated, classified and assimilated in worldviews in accordance

with the types of connections that they forge with each other.

Moreover, Science believes that it has a set of very effective tools to diagnose, distinguish, observe and describe these relationships. It proves its point by issuing highly accurate predictions based on the relationships discerned through the use of said tools. Science (mostly) claims that these connections are "true" in the sense that they are certain - not probable.

The cycle of formulation, prediction and falsification (or proof) is the core of the human scientific activity. Alleged connections that cannot be captured in these nets of reasoning are cast out either as "hypothetical" or as "false". In other words: Science defines "relations between entities" as "relations between entities which have been established and tested using the scientific apparatus and arsenal of tools". This, admittedly, is a very cyclical argument, as close to tautology as it gets.

Superstition is a much simpler matter: everything is connected to everything in ways unbeknown to us. We can only witness the results of these subterranean currents and deduce the existence of such currents from the observable flotsam. The planets influence our lives, dry coffee sediments contain information about the future, black cats portend disasters, certain dates are propitious, certain numbers are to be avoided. The world is unsafe because it can never be fathomed. But the fact that we - limited as we are - cannot learn about a hidden connection - should not imply that it does not exist.

Science believes in two categories of relationships between entities (physical and abstract alike). The one is the category of direct links - the other that of links through

a third entity. In the first case, A and B are seen to be directly related. In the second case, there is no apparent link between A and B, but a third entity, C could well provide such a connection (for instance, if A and B are parts of C or are separately, but concurrently somehow influenced by it).

Each of these two categories is divided to three subcategories: causal relationships, functional relationships and correlative relationship.

A and B will be said to be causally related if A precedes B, B never occurs if A does not precede it and always occurs after A occurs. To the discerning eye, this would seem to be a relationship of correlation ("whenever A happens B happens") and this is true. Causation is subsumed by a the 1.0 correlation relationship category. In other words: it is a private case of the more general case of correlation.

A and B are functionally related if B can be predicted by assuming A but we have no way of establishing the truth value of A. The latter is a postulate or axiom. The time dependent Schrödinger Equation is a postulate (cannot be derived, it is only reasonable). Still, it is the dynamic laws underlying wave mechanics, an integral part of quantum mechanics, the most accurate scientific theory that we have. An unproved, non-derivable equation is related functionally to a host of exceedingly precise statements about the real world (observed experimental results).

A and B are correlated if A explains a considerable part of the existence or the nature of B. It is then clear that A and B are related. Evolution has equipped us with highly developed correlation mechanisms because they are efficient in insuring survival. To see a tiger and to

associate the awesome sight with a sound is very useful.

Still, we cannot state with any modicum of certainty that we possess all the conceivable tools for the detection, description, analysis and utilization of relations between entities. Put differently: we cannot say that there are no connections that escape the tight nets that we cast in order to capture them. We cannot, for instance, say with any degree of certainty that there are no hyper-structures which would provide new, surprising insights into the interconnectedness of objects in the real world or in our mind. We cannot even say that the epistemological structures with which we were endowed are final or satisfactory. We do not know enough about knowing.

Consider the cases of Non-Aristotelian logic formalisms, Non-Euclidean geometries, Newtonian Mechanics and non classical physical theories (the relativity theories and, more so, quantum mechanics and its various interpretations). All of them revealed to us connections which we could not have imagined prior to their appearance. All of them created new tools for the capture of interconnectivity and inter-relatedness. All of them suggested one kind or the other of mental hyper-structures in which new links between entities (hitherto considered disparate) could be established.

So far, so good for superstitions. Today's superstition could well become tomorrow's Science given the right theoretical developments. The source of the clash lies elsewhere, in the insistence of superstitions upon a causal relation.

The general structure of a superstition is: A is caused by B. The causation propagates through unknown (one or more) mechanisms. These mechanisms are unidentified

(empirically) or unidentifiable (in principle). For instance, al the mechanisms of causal propagation which are somehow connected to divine powers can never, in principle, be understood (because the true nature of divinity is sealed to human understanding).

Thus, superstitions incorporate mechanisms of action which are, either, unknown to Science – or are impossible to know, as far as Science goes. All the "action-at-a-distance" mechanisms are of the latter type (unknowable). Parapsychological mechanisms are more of the first kind (unknown).

The philosophical argument behind superstitions is pretty straightforward and appealing. Perhaps this is the source of their appeal. It goes as follows:

- There is nothing that can be thought of that is impossible (in all the Universes);
- There is nothing impossible (in all the Universes) that can be thought of;
- Everything that can be thought about – is, therefore, possible (somewhere in the Universes);
- Everything that is possible exists (somewhere in the Universes).

If something can be thought of (=is possible) and is not known (=proven or observed) yet - it is most probably due to the shortcomings of Science and not because it does not exist.

Some of these propositions can be easily attacked. For instance: we can think about contradictions and falsehoods but (apart from a form of mental

representation) no one will claim that they exist in reality or that they are possible. These statements, though, apply very well to entities, the existence of which has yet to be disproved (=not known as false, or whose truth value is uncertain) and to improbable (though possible) things. It is in these formal logical niches that superstition thrives.

Appendix - Interview granted by Sam Vaknin to Adam Anderson

1. Do you believe that superstitions have affected American culture? And if so, how?

A. In its treatment of nature, Western culture is based on realism and rationalism and purports to be devoid of superstitions. Granted, many Westerners - perhaps the majority - are still into esoteric practices, such as Astrology. But the official culture and its bearers - scientists, for instance - disavow such throwbacks to a darker past.

Today, superstitions are less concerned with the physical Universe and more with human affairs. Political falsities - such as anti-Semitism - supplanted magic and alchemy. Fantastic beliefs permeate the fields of economics, sociology, and psychology, for instance. The effects of progressive taxation, the usefulness of social welfare, the role of the media, the objectivity of science, the mechanism of democracy, and the function of psychotherapy - are six examples of such groundless fables.

Indeed, one oft-neglected aspect of superstitions is their pernicious economic cost. Irrational action carries a price tag. It is impossible to optimize one's economic activity by making the right decisions and then acting on them in a

society or culture permeated by the occult. Esotericism skews the proper allocation of scarce resources.

2. Are there any superstitions that exist today that you believe could become facts tomorrow, or that you believe have more fact than fiction hidden in them?

A. Superstitions stem from one of these four premises:

- That there is nothing that can be thought of that is impossible (in all possible Universes);
- That there is nothing impossible (in all possible Universes) that can be thought of;
- That everything that can be thought of – is, therefore, possible (somewhere in these Universes);
- That everything that is possible exists (somewhere in these Universes).

As long as our knowledge is imperfect (asymptotic to the truth), everything is possible. As Arthur Clark, the British scientist and renowned author of science fiction, said: ***"Any sufficiently advanced technology is indistinguishable from magic".***

Still, regardless of how "magical" it becomes, positive science is increasingly challenged by the esoteric. The emergence of pseudo-science is the sad outcome of the blurring of contemporary distinctions between physics and metaphysics. Modern science borders on speculation and attempts, to its disadvantage, to tackle questions that once were the exclusive preserve of religion or

philosophy. The scientific method is ill-built to cope with such quests and is inferior to the tools developed over centuries by philosophers, theologians, and mystics.

Moreover, scientists often confuse language of representation with meaning and knowledge represented. That a discipline of knowledge uses quantitative methods and the symbol system of mathematics does not make it a science. The phrase "social sciences" is an oxymoron - and it misleads the layman into thinking that science is not that different to literature, religion, astrology, numerology, or other esoteric "systems".

The emergence of "relative", New Age, and politically correct philosophies rendered science merely one option among many. Knowledge, people believe, can be gleaned either directly (mysticism and spirituality) or indirectly (scientific practice). Both paths are equivalent and equipotent. Who is to say that science is superior to other "bodies of wisdom"? Self-interested scientific chauvinism is out - indiscriminate "pluralism" is in.

3. I have found one definition of the word "superstition" that states that it is "a belief or practice resulting from ignorance, fear of the unknown, trust in magic or chance, or a false conception of causation." What is your opinion about said definition?

A. It describes what motivates people to adopt superstitions - ignorance and fear of the unknown. Superstitions are, indeed, a "false conception of causation" which inevitably leads to "trust in magic". the only part I disagree with is the trust in chance. Superstitions are organizing principles. They serve as alternatives to other worldviews, such as religion or science. Superstitions seek to replace chance with an

"explanation" replete with the power to predict future events and establish chains of causes and effects.

4. Many people believe that superstitions were created to simply teach a lesson, like the old superstition that "the girl that takes the last cookie will be an old maid" was made to teach little girls manners. Do you think that all superstitions derive from some lesson trying to be taught that today's society has simply forgotten or cannot connect to anymore?

A. Jose Ortega y Gasset said (in an unrelated exchange) that all ideas stem from pre-rational beliefs. William James concurred by saying that accepting a truth often requires an act of will which goes beyond facts and into the realm of feelings. Superstitions permeate our world. Some superstitions are intended to convey useful lessons, others form a part of the process of socialization, yet others are abused by various elites to control the masses. But most of them are there to comfort us by proffering "instant" causal explanations and by rendering our Universe more meaningful.

5. Do you believe that superstitions change with the changes in culture?

A. The content of superstitions and the metaphors we use change from culture to culture - but not the underlying shock and awe that yielded them in the first place. Man feels dwarfed in a Cosmos beyond his comprehension. He seeks meaning, direction, safety, and guidance.

Superstitions purport to provide all these the easy way. To be superstitious one does not to study or to toil. Superstitions are readily accessible and unequivocal. In troubled times, they are an irresistible proposition.

T

Taboos

I. Taboos

Taboos regulate our sexual conduct, race relations, political institutions, and economic mechanisms - virtually every realm of our life. According to the 2002 edition of the "Encyclopedia Britannica", taboos are *"the prohibition of an action or the use of an object based on ritualistic distinctions of them either as being sacred and consecrated or as being dangerous, unclean, and accursed"*.

Jews are instructed to ritually cleanse themselves after having been in contact with a Torah scroll - or a corpse. This association of the sacred with the accursed and the holy with the depraved is the key to the guilt and sense of danger which accompany the violation of a taboo.

In Polynesia, where the term originated, says the Britannica, "taboos could include prohibitions on fishing or picking fruit at certain seasons; food taboos that restrict the diet of pregnant women; prohibitions on talking to or touching chiefs or members of other high social classes; taboos on walking or traveling in certain areas, such as forests; and various taboos that function during important life events such as birth, marriage, and death".

Political correctness in all its manifestations – in academe, the media, and in politics - *is a particularly pernicious kind of taboo enforcement. It entails an all-pervasive self-censorship coupled with social sanctions.*

Consider the treatment of the right to life, incest, suicide, and race.

II. Incest

In contemporary thought, incest is invariably associated with child abuse and its horrific, long-lasting, and often irreversible consequences. But incest is far from being the clear-cut or monolithic issue that millennia of taboo imply. Incest with minors is a private - and particularly egregious - case of pedophilia or statutory rape. It should be dealt with forcefully. But incest covers much more besides these criminal acts.

Incest is the ethical and legal prohibition to have sex with a related person or to marry him or her - even if the people involved are consenting and fully informed adults. Contrary to popular mythology, banning incest has little to do with the fear of genetic diseases. Even genetically unrelated parties (a stepfather and a stepdaughter, for example) can commit incest.

Incest is also forbidden between fictive kin or classificatory kin (that belong to the same matriline or patriline). In certain societies (such as certain Native American tribes and the Chinese) it is sufficient to carry the same family name (i.e., to belong to the same clan) to render a relationship incestuous. Clearly, in these instances, eugenic considerations have little to do with incest.

Moreover, the use of contraceptives means that incest does not need to result in pregnancy and the transmission of genetic material. Inbreeding (endogamous) or straightforward incest is the norm in many life forms, even among primates (e.g., chimpanzees). It was also

quite common until recently in certain human societies - the Hindus, for instance, or many Native American tribes, and royal families everywhere. In the Ptolemaic dynasty, blood relatives married routinely. Cleopatra’s first husband was her 13 year old brother, Ptolemy XIII.

Nor is the taboo universal. In some societies, incest is mandatory or prohibited, according to the social class (Bali, Papua New Guinea, Polynesian and Melanesian islands). In others, the Royal House started a tradition of incestuous marriages, which was later imitated by lower classes (Ancient Egypt, Hawaii, Pre-Columbian Mixtec). Some societies are more tolerant of consensual incest than others (Japan, India until the 1930's, Australia). The list is long and it serves to demonstrate the diversity of attitudes towards this most universal practice.

The more primitive and aggressive the society, the more strict and elaborate the set of incest prohibitions and the fiercer the penalties for their violation. The reason may be economic. Incest interferes with rigid algorithms of inheritance in conditions of extreme scarcity (for instance, of land and water) and consequently leads to survival-threatening internecine disputes. Most of humanity is still subject to such a predicament.

Freud said that incest provokes horror because it touches upon our forbidden, ambivalent emotions towards members of our close family. This ambivalence covers both aggression towards other members (forbidden and punishable) and (sexual) attraction to them (doubly forbidden and punishable).

Edward Westermarck proffered an opposite view that the domestic proximity of the members of the family breeds sexual repulsion (the epigenetic rule known as the

Westermarck effect) to counter naturally occurring genetic sexual attraction. The incest taboo simply reflects emotional and biological realities within the family rather than aiming to restrain the inbred instincts of its members, claimed Westermarck.

Both ignored the fact that the incest taboo is learned - not inherent.

We can easily imagine a society where incest is extolled, taught, and practiced - and out-breeding is regarded with horror and revulsion. The incestuous marriages among members of the royal households of Europe were intended to preserve the familial property and expand the clan's territory. They were normative, not aberrant. Marrying an outsider was considered abhorrent.

III. Suicide

Self-sacrifice, avoidable martyrdom, engaging in life risking activities, refusal to prolong one's life through medical treatment, euthanasia, overdosing, and self-destruction that is the result of coercion - are all closely related to suicide. They all involve a deliberately self-inflicted death.

But while suicide is chiefly intended to terminate a life – the other acts are aimed at perpetuating, strengthening, and defending values or other people. Many - not only religious people - are appalled by the choice implied in suicide - of death over life. They feel that it demeans life and abnegates its meaning.

Life's meaning - the outcome of active selection by the individual - is either external (such as God's plan) or internal, the outcome of an arbitrary frame of reference, such as having a career goal. Our life is rendered

meaningful only by integrating into an eternal thing, process, design, or being. Suicide makes life trivial because the act is not natural - not part of the eternal framework, the undying process, the timeless cycle of birth and death. Suicide is a break with eternity.

Henry Sidgwick said that only conscious (i.e., intelligent) beings can appreciate values and meanings. So, life is significant to conscious, intelligent, though finite, beings - because it is a part of some eternal goal, plan, process, thing, design, or being. Suicide flies in the face of Sidgwick's dictum. It is a statement by an intelligent and conscious being about the meaninglessness of life.

If suicide is a statement, than society, in this case, is against the freedom of expression. In the case of suicide, free speech dissonantly clashes with the sanctity of a meaningful life. To rid itself of the anxiety brought on by this conflict, society cast suicide as a depraved or even criminal act and its perpetrators are much castigated.

The suicide violates not only the social contract - but, many will add, covenants with God or nature. St. Thomas Aquinas wrote in the "Summa Theologiae" that - since organisms strive to survive - suicide is an unnatural act. Moreover, it adversely affects the community and violates the property rights of God, the imputed owner of one's spirit. Christianity regards the immortal soul as a gift and, in Jewish writings, it is a deposit. Suicide amounts to the abuse or misuse of God's possessions, temporarily lodged in a corporeal mansion.

This paternalism was propagated, centuries later, by Sir William Blackstone, the codifier of British Law. Suicide - being self-murder - is a grave felony, which the state has a right to prevent and to punish for. In certain countries this

still is the case. In Israel, for instance, a soldier is considered to be "military property" and an attempted suicide is severely punished as "a corruption of an army chattel".

Paternalism, a malignant mutation of benevolence, is about objectifying people and treating them as possessions. Even fully-informed and consenting adults are not granted full, unmitigated autonomy, freedom, and privacy. This tends to breed "victimless crimes". The "culprits" - gamblers, homosexuals, communists, suicides, drug addicts, alcoholics, prostitutes – are "protected from themselves" by an intrusive nanny state.

The possession of a right by a person imposes on others a corresponding obligation not to act to frustrate its exercise. Suicide is often the choice of a mentally and legally competent adult. Life is such a basic and deep set phenomenon that even the incompetents - the mentally retarded or mentally insane or minors - can fully gauge its significance and make "informed" decisions, in my view.

The paternalists claim counterfactually that no competent adult "in his right mind" will ever decide to commit suicide. They cite the cases of suicides who survived and felt very happy that they have - as a compelling reason to intervene. But we all make irreversible decisions for which, sometimes, we are sorry. It gives no one the right to interfere.

Paternalism is a slippery slope. Should the state be allowed to prevent the birth of a genetically defective child or forbid his parents to marry in the first place? Should unhealthy adults be forced to abstain from smoking, or steer clear from alcohol? Should they be coerced to exercise?

Suicide is subject to a double moral standard. People are permitted - nay, encouraged - to sacrifice their life only in certain, socially sanctioned, ways. To die on the battlefield or in defense of one's religion is commendable. This hypocrisy reveals how power structures - the state, institutional religion, political parties, national movements - aim to monopolize the lives of citizens and adherents to do with as they see fit. Suicide threatens this monopoly. Hence the taboo.

IV. Race

Social Darwinism, sociobiology, and, nowadays, evolutionary psychology are all derided and disparaged because they try to prove that nature - more specifically, our genes - determine our traits, our accomplishments, our behavior patterns, our social status, and, in many ways, our destiny. Our upbringing and our environment change little. They simply select from ingrained libraries embedded in our brain.

Moreover, the discussion of race and race relations is tainted by a history of recurrent ethnocide and genocide and thwarted by the dogma of egalitarianism. The (legitimate) question "are all races equal" thus becomes a private case of the (no less legitimate) "are all men equal". To ask "can races co-exist peacefully" is thus to embark on the slippery slope to slavery and Auschwitz. These historical echoes and the overweening imposition of political correctness prevent any meaningful - let alone scientific - discourse.

The irony is that "race" - or at least race as determined by skin color - is a distinctly unscientific concept, concerned more with appearances (i.e., the color of one's skin, the shape of one's head or hair), common history, and social

politics - than strictly with heredity. Dr. Richard Lewontin, a Harvard geneticist, noted in his work in the 1970s that the popularity of the idea of race is an "indication of the power of socioeconomically based ideology over the supposed objectivity of knowledge."

Still, many human classificatory traits are concordant. Different taxonomic criteria conjure up different "races" - but also real races. As Cambridge University statistician, A. W. F. Edwards, observed in 2003, certain traits and features do tend to cluster and positively correlate (dark skinned people do tend to have specific shapes of noses, skulls, eyes, bodies, and hair, for instance). IQ is a similarly contentious construct, but it is stable and does predict academic achievement effectively.

Granted, racist-sounding claims may be as unfounded as claims about racial equality. Still, while the former are treated as an abomination - the latter are accorded academic respectability and scientific scrutiny.

Consider these two hypotheses:

1. That the IQ (or any other measurable trait) of a given race or ethnic group is hereditarily determined (i.e., that skin color and IQ - or another measurable trait - are concordant) and is strongly correlated with certain types of behavior, life accomplishments, and social status.

2. That the IQ (or any other quantifiable trait) of a given race or "ethnic group" is the outcome of social and economic circumstances and even if strongly correlated with behavior patterns, academic or other achievements, and social status - which is disputable - is amenable to "social

engineering".

Both theories are falsifiable and both deserve serious, unbiased, study. That we choose to ignore the first and substantiate the second demonstrates the pernicious and corrupting effect of political correctness.

Claims of the type "trait A and trait B are concordant" should be investigated by scientists, regardless of how politically incorrect they are. Not so claims of the type "people with trait A are..." or "people with trait A do...". These should be decried as racist tripe.

Thus, medical research shows the statement "The traits of being an Ashkenazi Jew (A) and suffering from Tay-Sachs induced idiocy (B) are concordant in 1 of every 2500 cases" is true.

The statements "people who are Jews (i.e., with trait A) are (narcissists)", or "people who are Jews (i.e., with trait A) do this: they drink the blood of innocent Christian children during the Passover rites" - are vile racist and paranoid statements.

People are not created equal. Human diversity - a taboo topic - is a cause for celebration. It is important to study and ascertain what are the respective contributions of nature and nurture to the way people - individuals and groups - grow, develop, and mature. In the pursuit of this invaluable and essential knowledge, taboos are dangerously counter-productive.

V. Moral Relativism

Protagoras, the Greek Sophist, was the first to notice that ethical codes are culture-dependent and vary in different societies, economies, and geographies. The pragmatist

believe that what is right is merely what society thinks is right at any given moment. Good and evil are not immutable. No moral principle - and taboos are moral principles - is universally and eternally true and valid. Morality applies within cultures but not across them.

But ethical or cultural relativism and the various schools of pragmatism ignore the fact that certain ethical percepts - probably grounded in human nature - do appear to be universal and ancient. Fairness, veracity, keeping promises, moral hierarchy - permeate all the cultures we have come to know. Nor can certain moral tenets be explained away as mere expressions of emotions or behavioral prescriptions - devoid of cognitive content, logic, and a relatedness to certain facts.

Still, it is easy to prove that most taboos are, indeed, relative. Incest, suicide, feticide, infanticide, parricide, ethnocide, genocide, genital mutilation, social castes, and adultery are normative in certain cultures - and strictly proscribed in others. Taboos are pragmatic moral principles. They derive their validity from their efficacy. They are observed because they work, because they yield solutions and provide results. They disappear or are transformed when no longer useful.

Incest is likely to be tolerated in a world with limited possibilities for procreation. Suicide is bound to be encouraged in a society suffering from extreme scarcity of resources and over-population. Ethnocentrism, racism and xenophobia will inevitably rear their ugly heads again in anomic circumstances. None of these taboos is unassailable.

None of them reflects some objective truth, independent of culture and circumstances. They are convenient

conventions, workable principles, and regulatory mechanisms - nothing more. That scholars are frantically trying to convince us otherwise - or to exclude such a discussion altogether - is a sign of the growing disintegration of our weakening society.

Technology, Philosophy of

However far modern science and technology have fallen short of their inherent possibilities, they have taught mankind at least one lesson: Nothing is impossible.

Today, the degradation of the inner life is symbolized by the fact that the only place sacred from interruption is the private toilet.

By his very success in inventing laboursaving devices, modern man has manufactured an abyss of boredom that only the privileged classes in earlier civilizations have ever fathomed.

For most Americans, progress means accepting what is new because it is new, and discarding what is old because it is old.

I would die happy if I knew that on my tombstone could be written these words, "This man was an absolute fool. None of the disastrous things that he reluctantly predicted ever came to pass!"

Lewis Mumford (1895-1990)

1. Is it meaningful to discuss technology separate from life, as opposed to life, or compared to life? Is it not the inevitable product of life, a determinant of life and part of its definition? Francis Bacon and, centuries later, the visionary Ernst Kapp, thought of technology as a means to

conquer and master nature - an expression of the classic dichotomy between observer and observed. But there could be other ways of looking at it (consider, for instance, the seminal work of Friedrich Dessauer). Kapp was the first to talk of technology as "organ projection" (preceding McLuhan by more than a century). Freud wrote in "Civilization and its Discontents": "Man has, as it were, become a kind of prosthetic god. When he puts on all his auxiliary organs he is truly magnificent; but those organs have not grown on to him and they still give him much trouble at times."

2. On the whole, has technology contributed to human development or arrested it?

3. Even if we accept that technology is alien to life, a foreign implant and a potential menace - what frame of reference can accommodate the new convergence between life and technology (mainly medical technology and biotechnology)? What are cyborgs - life or technology? What about clones? Artificial implants? Life sustaining devices (like heart-kidney machines)? Future implants of chips in human brains? Designer babies, tailored to specifications by genetic engineering? What about ARTIFICIAL intelligence?

4. Is technology IN-human or A-human? In other words, are the main, immutable and dominant attributes of technology alien to humans, to the human spirit, or to the human brain? Is this possible at all? Is such non-human technology likely to be developed by artificial intelligence machines in the future? Finally, is this kind of technology automatically ANTI-human as well? Mumford's classification of all technologies to polytechnic (human-friendly) and monotechnic (human averse) springs to mind.

5. Is the impact technology has on the INDIVIDUAL necessarily identical or even comparable to the impact it has on human collectives and societies? Think Internet - the answer in this case is clearly NEGATIVE.

6. Is it possible to define what is technology at all?
If we adopt Monsma's definition of technology (1986) as "the systematic treatment of an art" - is art to be treated as a variant of technology? Robert Merton's definition is a non-definition because it is so broad it encompasses all teleological human actions: "any complex of standardized means for attaining a predetermined result". Jacques Ellul resorted to tautology: "the totality of methods rationally arrived at and having absolute efficiency in every field of human activity" (1964). H.D. Lasswell (whose work is mainly media-related) proffered an operative definition: "the ensemble of practices by which one uses available resources to achieve certain valued ends". It is clear how unclear and indefensible these definitions are.

7. The use of technology involves choices and the exercise of free will. Does technology enhance our ability to exercise free will - or does it detract from it? Is there an inherent and insolvable contradiction between technology and ethical and moral percepts? Put more simply: is technology inherently unethical and immoral or a-moral? If so, is it fatalistic, or deterministic, as Thurstein Veblen suggested (in "Engineers and the Price System")? To rephrase the question; does technology DETERMINE our choices and actions? Does it CONSTRAIN our possibilities and LIMIT our potentials? We are all acquainted with utopias (and dystopias) based on technological advances (just recall the millenarian fervour with which electricity, the telegraph, railways, the radio, television and the Internet were greeted). Technology

seems to shape cultures, societies, ideals and expectations. It is an ACTIVE participant in social dynamics. This is the essence of Mumford's "megamachine", the "rigid, hierarchical social organization". Contrast this with Dessauer's view of technology as a kind of moral and aesthetic statement or doing, a direct way of interacting with things-in-themselves. The latter's views place technology neatly in the Kantian framework of categorical imperatives.

8. Is technology IN ITSELF neutral? Can the the undeniable harm caused by technology be caused, as McLuhan put it, by HUMAN mis-use and abuse: "[It] is not that there is anything good or bad about [technology] but that unconsciousness of the effect of any force is a disaster, especially a force that we have made ourselves". If so, why blame technology and exonerate ourselves? Displacing the blame is a classic psychological defence mechanism but it leads to fatal behavioural rigidities and pathological thinking.

Technology and Law

One can discern the following relationships between the Law and Technology:

1. Sometimes technology becomes an inseparable part of the law. In extreme cases, technology itself becomes the law. The use of polygraphs, faxes, telephones, video, audio and computers is an integral part of many laws - etched into them. It is not an artificial co-habitation: the technology is precisely defined in the law and forms a CONDITION within it. In other words: the very spirit and letter of the law is violated (the law is broken) if a certain technology is not employed or not put to correct use. Think about police laboratories, about the O.J. Simpson

case, the importance of DNA prints in everything from determining fatherhood to exposing murderers. Think about the admissibility of polygraph tests in a few countries. Think about the polling of members of boards of directors by phone or fax (explicitly required by law in many countries). Think about assisted suicide by administering painkillers (medicines are by far the most sizeable technology in terms of money). Think about security screening by using advances technology (retina imprints, voice recognition). In all these cases, the use of a specific, well defined, technology is not arbitrarily left to the judgement of law enforcement agents and courts. It is not a set of options, a menu to choose from. It is an INTEGRAL, crucial part of the law and, in many instances, it IS the law itself.

2. Technology itself contains embedded laws of all kinds. Consider internet protocols. These are laws which form part and parcel of the process of decentralized data exchange so central to the internet. Even the language used by the technicians implies the legal origin of these protocols: "handshake", "negotiating", "protocol", "agreement" are all legal terms. Standards, protocols, behavioural codes - whether voluntarily adopted or not - are all form of Law. Thus, internet addresses are allocated by a central authority. Netiquette is enforced universally. Special chips and software prevent render certain content inaccessible. The scientific method (a codex) is part of every technological advance. Microchips incorporate in silicone agreements regarding standards. The law becomes a part of the technology and can be deduced simply by studying it in a process known as "reverse engineering". In stating this, I am making a distinction between lex naturalis and lex populi. All technologies obey the laws of nature - but we, in this discussion, I

believe, wish to discuss only the laws of Man.

3. Technology spurs on the law, spawns it, as it were, gives it birth. The reverse process (technology invented to accommodate a law or to facilitate its implementation) is more rare. There are numerous examples. The invention of modern cryptography led to the formation of a host of governmental institutions and to the passing of numerous relevant laws. More recently, microchips which censor certain web content led to proposed legislation (to forcibly embed them in all computing appliances). Sophisticated eavesdropping, wiring and tapping technologies led to laws regulating these activities. Distance learning is transforming the laws of accreditation of academic institutions. Air transport forced health authorities all over the world to revamp their quarantine and epidemiological policies (not to mention the laws related to air travel and aviation). The list is interminable.

Once a law is enacted - which reflects the state of the art technology - the roles are reversed and the law gives a boost to technology. Seat belts and airbags were invented first. The law making seat belts (and, in some countries, airbags) mandatory came (much) later. But once the law was enacted, it fostered the formation of whole industries and technological improvements. The Law, it would seem, legitimizes technologies, transforms them into "mainstream" and, thus, into legitimate and immediate concerns of capitalism and capitalists (big business). Again, the list is dizzying: antibiotics, rocket technology, the internet itself (first developed by the Pentagon), telecommunications, medical computerized scanning - and numerous other technologies - came into real, widespread being following an interaction with the law. I am using the term "interaction" judiciously because there

are four types of such encounters between technology and the law:

a. A positive law which follows a technological advance (a law regarding seat belts after seat belts were invented). Such positive laws are intended either to disseminate the technology or to stifle it.

b. An intentional legal lacuna intended to encourage a certain technology (for instance, very little legislation pertains to the internet with the express aim of "letting it be"). Deregulation of the airlines industries is another example.

c. Structural interventions of the law (or law enforcement authorities) in a technology or its implementation. The best examples are the breaking up of AT&T in 1984 and the current anti-trust case against Microsoft. Such structural transformations of monopolists release hitherto monopolized information (for instance, the source codes of software) to the public and increases competition - the mother of invention.

d. The conscious encouragement, by law, of technological research (research and development). This can be done directly through government grants and consortia, Japan's MITI being the finest example of this approach. It can also be done indirectly - for instance, by freeing up the capital and labour markets which often leads to the formation of risk or venture capital invested in new technologies. The USA is the most prominent (and, now, emulated) example of this path.

4. A Law that cannot be made known to the citizenry or that cannot be effectively enforced is a "dead letter" - not

a law in the vitalist, dynamic sense of the word. For instance, the Laws of Hammurabi (his codex) are still available (through the internet) to all. Yet, do we consider them to be THE or even A Law? We do not and this is because Hammurabi's codex is both unknown to the citizenry and inapplicable. Hammurabi's Laws are inapplicable not because they are anachronistic. Islamic law is as anachronistic as Hammurabi's code - yet it IS applicable and applied in many countries. Applicability is the result of ENFORCEMENT. Laws are manifestations of asymmetries of power between the state and its subjects. Laws are the enshrining of violence applied for the "common good" (whatever that is - it is a shifting, relative concept).

Technology plays an indispensable role in both the dissemination of information and in enforcement efforts. In other words, technology helps teach the citizens what are the laws and how are they likely to be applied (for instance, through the courts, their decisions and precedents). More importantly, technology enhances the efficacy of law enforcement and, thus, renders the law applicable. Police cars, court tape recorders, DNA imprints, fingerprinting, phone tapping, electronic surveillance, satellites - are all instruments of more effective law enforcement. In a broader sense, ALL technology is at the disposal of this or that law. Take defibrillators. They are used to resuscitate patients suffering from severe cardiac arrhythmia's. But such resuscitation is MANDATORY by LAW. So, the defibrillator - a technological medical instrument - is, in a way, a law enforcement device.

But, all the above are superficial - phenomenological - observation (though empirical and pertinent). There is a much more profound affinity between technology and the

Law. Technology is the material embodiment of the Laws of Nature and the Laws of Man (mainly the former). The very structure and dynamics of technology are identical to the structure and dynamics of the law - because they are one and the same. The Law is abstract - technology is corporeal. This, to my mind, is absolutely the only difference. Otherwise, Law and Technology are manifestation of the same underlying principles. To qualify as a "Law" (embedded in external hardware - technology - or in internal hardware - the brain), it must be:

a. ***All-inclusive (anamnetic)*** – It must encompass, integrate and incorporate all the facts known about the subject.

b. ***Coherent*** – It must be chronological, structured and causal.

c. ***Consistent*** – Self-consistent (its parts cannot contradict one another or go against the grain of the main raison d'être) and consistent with the observed phenomena (both those related to the subject and those pertaining to the rest of the universe).

d. ***Logically compatible*** – It must not violate the laws of logic both internally (the structure and process must abide by some internally imposed logic) and externally (the Aristotelian logic which is applicable to the observable world).

e. ***Insightful*** – It must inspire a sense of awe and astonishment which is the result of seeing something familiar in a new light or the result of seeing a pattern emerging out of a big body of

data. The insights must be the logical conclusion of the logic, the language and of the development of the subject. I know that we will have heated debate about this one. But, please, stop to think for a minute about the reactions of people to new technology or to new laws (and to the temples of these twin religions - the scientist's laboratory and the courts). They are awed, amazed, fascinated, stunned or incredulous.

f. ***Aesthetic*** – The structure of the law and the processes embedded in it must be both plausible and "right", beautiful, not cumbersome, not awkward, not discontinuous, smooth and so on.

g. ***Parsimonious*** – The structure and process must employ the minimum number of assumptions and entities in order to satisfy all the above conditions.

h. ***Explanatory*** – The Law or technology must explain or incorporate the behaviour of other entities, knowledge, processes in the subject, the user's or citizen's decisions and behaviour and an history (why events developed the way that they did). Many technologies incorporate their own history. For instance: the distance between two rails in a modern railroad is identical to the width of Roman roads (equal to the backside of two horses).

i. ***Predictive (prognostic)*** – The law or technology must possess the ability to predict future events, the future behaviour of entities and other inner or even emotional and cognitive dynamics.

j. ***Transforming*** – With the power to induce change

(whether it is for the better, is a matter of contemporary value judgements and fashions).

k. ***Imposing*** – The law or technology must be regarded by the citizen or user as the preferable organizing principle some of his life's events and as a guiding principle.

l. ***Elastic*** – The law or the technology must possess the intrinsic abilities to self organize, reorganize, give room to emerging order, accommodate new data comfortably, avoid rigidity in its modes of reaction to attacks from within and from without.

Scientific theories should satisfy most of the same conditions because their subject matter is Laws (the laws of nature). The important elements of testability, verifiability, refutability, falsifiability, and repeatability – should all be upheld by technology.

But here is the first important difference between Law and technology. The former cannot be falsified, in the Popperian sense.

There are four reasons to account for this shortcoming:

1. ***Ethical*** – Experiments would have to be conducted, involving humans. To achieve the necessary result, the subjects will have to be ignorant of the reasons for the experiments and their aims. Sometimes even the very performance of an experiment will have to remain a secret (double blind experiments). Some experiments may involve unpleasant experiences. This is ethically unacceptable.

2. ***The Psychological Uncertainty Principle*** – The current position of a human subject can be fully

known. But both treatment and experimentation influence the subject and void this knowledge. The very processes of measurement and observation influence the subject and change him.

3. ***Uniqueness*** – Psychological experiments are, therefore, bound to be unique, unrepeatable, cannot be replicated elsewhere and at other times even if they deal with the SAME subjects. The subjects are never the same due to the psychological uncertainty principle. Repeating the experiments with other subjects adversely affects the scientific value of the results.

4. ***The undergeneration of testable hypotheses*** – Laws deal with humans and with their psyches. Psychology does not generate a sufficient number of hypotheses, which can be subjected to scientific testing. This has to do with the fabulous (=storytelling) nature of psychology. In a way, psychology has affinity with some private languages. It is a form of art and, as such, is self-sufficient. If structural, internal constraints and requirements are met – a statement is deemed true even if it does not satisfy external scientific requirements.

Thus, I am forced to conclude that technology is the embodiment of the laws of nature is a rigorous manner subjected to the scientific method - while the law is the abstract construct of the laws of human and social psychology which cannot be tested scientifically. While the Law and technology are structurally and functionally similar and have many things in common (see the list above) - they diverge when it comes to the formation of hypotheses and their falsifiability.

Teleology

In his book, ***Global Brain: The Evolution of Mass Mind from the Big Bang to the 21st Century***, published in 2002, Howard Bloom suggests that all the organisms on the planet contribute to a pool of knowledge and, thus, constitute a "global brain". He further says that different life-forms "strike deals" to modify their "behavior" and traits and thus be of use to each other.

This is a prime example of teleology (and, at times, tautology). It anthropomorphesizes nature by attributing to plants, bacteria, and animals human qualities such as intelligence, volition, intent, planning, foresight, and utilitarian thinking. The source of the confusion is in the misidentification of cause and effect.

Organisms do "collaborate" in one of these ways:

(i) **Co-existence** - They inhabit the same eco-system but do not interact with each other

(ii) **Food Chain** - They occupy the same eco-system but feed on each other

(iii) **Maintenance** - Some organisms maintain the life and facilitate the reproduction of others, but can survive, or even do well, without the maintained subspecies, though the reverse is not true.

(iv) **Enablement or Empowerment** - The abilities and powers of some organisms are enhanced or extended by other species, but they can survive or even do well even without such enhancement or extension.

(v) **Symbiosis** - Some organisms are dependent on each other for the performance of vital functions. They cannot

survive, reproduce, or thrive for long without the symbiont.

Clearly, these arrangements superficially resemble human contracting - but they lack the aforementioned human inputs of volition, foresight, or planning. Is Nature as a whole intelligent (as we humans understand intelligence)? Was it designed by an intelligent being (the "watchmaker" hypothesis)? If it was, is each and every part of Nature endowed with this "watchmaker" intelligence?

The word "telos" in ancient Greek meant: "goal, target, mission, completion, perfection". The Greeks seem to have associated the attaining of a goal with perfection. Modern scientific thought is much less sanguine about teleology, the belief that causes are preceded by their effects.

The idea of reverse causation is less zany than it sounds. It was Aristotle who postulated the existence of four types of causes. It all started with the attempt to differentiate explanatory theories from theories concerning the nature of explanation (and the nature of explanatory theories).

To ***explain*** is to provoke an understanding in a listener as to why and how something is as it is. Thales, Empedocles and Anaxagoras were mostly concerned with offering explanations to natural phenomena. The very idea that there must be an explanation is revolutionary. We are so used to it that we fail to see its extraordinary nature. Why not assume that everything is precisely as it is simply because this is how it should be, or because there is no better way (Leibnitz), or because someone designed it this way (religious thought)?

Plato carried this revolution further by seeking not only to

explain things, but also to construct a systematic, connective epistemology. His Forms and Ideas are (not so primitive) attempts to elucidate the mechanism which we employ to cope with the world of things, on the one hand, and the vessels through which the world impresses itself upon us, on the other hand.

Aristotle made this distinction explicit: he said that there is a difference between the chains of causes of effects (what leads to what by way of causation) and the enquiry regarding the very nature of causation and causality.

In this text, we will use the word causation in the sense of: "the action of causes that brings on their effects" and causality as: "the relation between causes and their effects".

Studying this subtle distinction, Aristotle came across his "four causes". All, according to him, could be employed in explaining the world of natural phenomena. This is his point of departure from modern science. Current science does not admit the possibility of a final cause in action.

But, first things first. The formal cause is why a thing is the type of thing that it is. The material cause is the matter in which the formal cause is impressed. The efficient cause is what produces the thing that the formal and the material causes conspire to yield. It is the final cause that remotely drives all these causes in a chain. It is "that for the sake of which" the thing was produced and, as a being, acts and is acted upon. It is to explain the coming to being of the thing by relating to its purpose in the world (even if the purpose is not genuine).

It was Francis Bacon who set the teleological explanations apart from the scientific ones.

There are forms and observed features or behaviours. The two are correlated in the shape of a law. It is according to such a law, that a feature happens or is caused to happen. The more inclusive the explanation provided by the law, the higher its certainty.

This model, slightly transformed, is still the prevailing one in science. Events are necessitated by laws when correlated with a statement of the relevant facts. Russel, in Hume's footsteps, gave a modern dress to his constant conjunction : such laws, he wrote, should not provide the details of a causal process, rather they should yield a table of correlations between natural variables.

Hume said that what we call "cause and effect" is a fallacy generated by our psychological propensity to find "laws" where there are none. A relation between two events, where one is always conjoined by the other is called by us "causation". But that an event follows another invariably - does not prove that one is the other's cause.

Yet, if we ignore, for a minute, whether an explanation based on a final cause is at all legitimate in the absence of an agent and whether it can at all be a fundamental principle of nature - the questions remains whether a teleological explanation is possible, sufficient, or necessary?

It would seem that sometimes it is. From Kip Thorne's excellent tome "Black Holes and Tim Warps" (Papermac, 1994, page 417):

"They (the physicists Penrose and Israel - SV) especially could not conceive of jettisoning it in favour of the absolute horizon (postulated by Hawking - SV). Why? Because the absolute horizon - paradoxically, it might

seem - violates our cherished notion that an effect should not precede its cause. When matter falls into a black hole, the absolute horizon starts to grow ("effect") before the matter reaches it ("cause"). The horizon grows in anticipation that the matter will soon be swallowed and will increase the hole's gravitational pull... Penrose and Israel knew the origin of seeming paradox. The very definition of the absolute horizon depends on what will happen in the future: on whether or not signals will ultimately escape to the distant Universe. In the terminology of philosophers, it is a teleological definition (a definition that relies on "final causes"), and it forces the horizon's evolution to be teleological. Since teleological viewpoints have rarely if ever been useful in modern physics, Penrose and Israel were dubious about the merits of the absolute horizon... (page 419) Within a few months, Hawking and James Hartle were able to derive, from Einstein's general relativity laws, a set of elegant equations that describe how the absolute horizon continuously and smoothly expands and changes its shape, in anticipation of swallowing infalling debris or gravitational waves, or in anticipation of being pulled on by the gravity of other bodies."

The most famous teleological argument is undoubtedly the "design argument" in favour of the existence of God. Could the world have been created accidentally? It is ordered to such an optimal extent, that many find it hard to believe. The world to God is what a work of art is to the artist, the argument goes. Everything was created and "set in motion" with a purpose in (God's) mind. The laws of nature are goal-oriented.

It is a probabilistic argument: the most plausible

explanation is that there is an intelligent creator and designer of the Universe who, in most likelihood, had a purpose, a goal in mind. What is it that he had in mind is what religion and philosophy (and even science) are all about.

A teleological explanation is one that explains things and features while relating to their contribution to optimal situations, or to a normal mode of functioning, or to the attainment of goals by a whole or by a system to which the said things or features belong.

Socrates tried to understand things in terms of what good they do or bring about. Yet, there are many cases when the contribution of a thing towards a desired result does not account for its occurrence. Snow does not fall ***IN ORDER*** to allow people to ski, for instance.

But it is different when we invoke an intelligent creator. It can be convincingly shown that such a creator designed and maintained the features of an object in order to allow it to achieve an aim. In such a case, the very occurrence, the very existence of the object is explained by grasping its contribution to the attainment its function.

An intelligent agent (creator) need not necessarily be a single, sharply bounded, entity. A more fuzzy collective may qualify as long as its behaviour patterns are cohesive and identifiably goal oriented. Thus, teleological explanations could well be applied to organisms (collections of cells), communities, nations and other ensembles.

To justify a teleological explanation, one needs to analyse the function of the item to be explained, on the one hand - and to provide an etiological account, on the other hand.

The functional account must strive to explain what the item contributes to the main activity of the system, the object, or the organism, a part of which it constitutes - or to their proper functioning, well-being, preservation, propagation, integration (within larger systems), explanation, justification, or prediction.

The reverse should also be possible. Given knowledge regarding the functioning, integration, etc. of the whole - the function of any element within it should be derivable from its contribution to the functioning whole. Though the practical ascription of goals (and functions) is problematic, it is, in principle, doable.

But it is not sufficient. That something is both functional and necessarily so does not yet explain ***HOW*** it happened to have so suitably and conveniently materialized. This is where the etiological account comes in. A good etiological account explains both the mechanisms through which the article (to be explained) has transpired and what aspects of the structure of the world it was able to take advantage of in its preservation, propagation, or functioning.

The most famous and obvious example is evolution. The etiological account of natural selection deals both with the mechanisms of genetic transfer and with the mechanisms of selection. The latter bestow upon the organism whose feature we seek to be explain a better chance at reproducing (a higher chance than the one possessed by specimen without the feature).

Throughout this discussion, it would seem that a goal necessarily implies the existence of an intention (to realize it). A lack of intent leaves only one plausible course of action: automatism. Any action taken in the absence of a manifest intention to act is, by definition, an automatic

action.

The converse is also true: automatism prescribes the existence of a sole possible mode of action, a sole possible Nature. With an automatic action, no choice is available, there are no degrees of freedom, or freedom of action. Automatic actions are, ipso facto, deterministic.

But both statements may be false. Surely we can conceive of a goal-oriented act behind which there is no intent of the first or second order. An intent of the second order is, for example, the intentions of the programmer as enshrined and expressed in a software application. An intent of the first order would be the intentions of the same programmer which directly lead to the composition of said software.

Still, the distinction between volitional and automatic actions is not clear-cut.

Consider, for instance, house pets. They engage in a variety of acts. They are goal oriented (seek food, drink, etc.). Are they possessed of a conscious, directional, volition (intent)? Many philosophers argued against such a supposition. Moreover, sometimes end-results and by-products are mistaken for goals. Is the goal of objects to fall down? Gravity is a function of the structure of space-time. When we roll a ball down a slope (which is really what gravitation is all about, according to the General Theory of Relativity) is its "goal" to come to a rest at the bottom? Evidently not.

Still, some natural processes are much less evident. Natural processes are considered to be witless reactions. No intent can be attributed to them because no intelligence can be ascribed to them. This is true but only

at times.

Intelligence is hard to to define. Still, the most comprehensive approach would be to describe it as the synergetic sum of a host of mental processes (some conscious, some not). These mental processes are concerned with information: its gathering, its accumulation, classification, inter-relation, association, analysis, synthesis, integration, and all other modes of processing and manipulation.

But is this not what natural processes are all about? And if nature is the sum total of all natural processes, aren't we forced to admit that nature is (intrinsically, inherently, of itself) intelligent? The intuitive reaction to these suggestions is bound to be negative. When we use the term "intelligence", we seem not to be concerned with just any kind of intelligence - but with intelligence that is separate from and external to what has to be explained. If both the intelligence and the item that needs explaining are members of the same set, we tend to disregard the intelligence involved and label it as "natural" and, therefore, irrelevant.

Moreover, not everything that is created by an intelligence (however "relevant", or external) is intelligent in itself. Some automatic products of intelligent beings are inanimate and non-intelligent. On the other hand, as any Artificial Intelligence buff would confirm, automata can become intelligent, having crossed a certain quantitative or qualitative level of complexity. The weaker form of this statement is that, beyond a certain quantitative or qualitative level of complexity, it is impossible to tell the automatic from the intelligent. Is Nature automatic, is it intelligent, or on the seam between automata and intelligence?

Nature contains everything and, therefore, contains multiple intelligences. That which contains intelligence is not necessarily intelligent, unless the intelligences contained are functional determinants of the container. Quantum mechanics (rather, its Copenhagen interpretation) implies that this, precisely, is the case. Intelligent, conscious, observers determine the very existence of subatomic particles, the constituents of all matter-energy. Human (intelligent) activity determines the shape, contents and functioning of the habitat Earth. If other intelligent races populate the universe, this could be the rule, rather than the exception. Nature may, indeed, be intelligent.

Jewish mysticism believes that humans have a major role: fixing the results of a cosmic catastrophe, the shattering of the divine vessels through which the infinite divine light poured forth to create our finite world. If Nature is determined to a predominant extent by its contained intelligences, then it may well be teleological.

Indeed, goal-orientated behaviour (or behavior that could be explained as goal-orientated) is Nature's hallmark. The question whether automatic or intelligent mechanisms are at work, really deals with an underlying issue, that of consciousness. Are these mechanisms self-aware, introspective? Is intelligence possible without such self-awareness, without the internalized understanding of what it is doing?

Kant's third and the fourth dynamic antinomies deal with this apparent duality: automatism versus intelligent acts.

The third thesis relates to causation which is the result of free will as opposed to causation which is the result of the laws of nature (nomic causation). The antithesis is that

freedom is an illusion and everything is pre-determined. So, the third antinomy is really about intelligence that is intrinsic to Nature (deterministic) versus intelligence that is extrinsic to it (free will).

The fourth thesis deals with a related subject: God, the ultimate intelligent creator. It states that there must exist, either as part of the world or as its cause a Necessary Being. There are compelling arguments to support both the theses and the antitheses of the antinomies.

The opposition in the antinomies is not analytic (no contradiction is involved) - it is dialectic. A method is chosen for answering a certain type of questions. That method generates another question of the same type. "The unconditioned", the final answer that logic demands is, thus, never found and endows the antinomy with its disturbing power. Both thesis and antithesis seem true.

Perhaps it is the fact that we are constrained by experience that entangles us in these intractable questions. The fact that the causation involved in free action is beyond possible experience does not mean that the idea of such a causality is meaningless.

Experience is not the best guide in other respects, as well. An effect can be caused by many causes or many causes can lead to the same effect. Analytic tools - rather than experiential ones - are called for to expose the "true" causal relations (one cause-one effect).

Experience also involves mnemic causation rather than the conventional kind. In the former, the proximate cause is composed not only of a current event but also of a past event. Richard Semon said that mnemic phenomena (such as memory) entail the postulation of engrams or

intervening traces. The past cannot have a direct effect without such mediation.

Russel rejected this and did not refrain from proposing what effectively turned out to be action at a distance. This is not to mention backwards causation. A confession is perceived by many to annul past sins. This is the Aristotelian teleological causation. A goal generates a behaviour. A product of Nature develops as a cause of a process which ends in it (a tulip and a bulb).

Finally, the distinction between reasons and causes is not sufficiently developed to really tell apart teleological from scientific explanations. Both are relations between phenomena ordained in such a way so that other parts of the world are effected by them. If those effected parts of the world are conscious beings (not necessarily rational or free), then we have "reasons" rather than "causes".

But are reasons causal? At least, are they concerned with the causes of what is being explained? There is a myriad of answers to these questions. Even the phrase: "Are reasons causes?" may be considered to be a misleading choice of words. Mental causation is a foggy subject, to put it mildly.

Perhaps the only safe thing to say would be that causes and goals need not be confused. One is objective (and, in most cases, material), the other mental. A person can act in order to achieve some future thing but it is not a future cause that generates his actions as an effect. The immediate causes absolutely precede them. It is the past that he is influenced by, a past in which he formed a ***VISION*** of the future.

The contents of mental imagery are not subject to the laws

of physics and to the asymmetry of time. The physical world and its temporal causal order are. The argument between teleologists and scientist may, all said and done, be merely semantic. Where one claims an ontological, ***REAL*** status for mental states (reasons) - one is a teleologist. Where one denies this and regards the mental as ***UNREAL***, one is a scientist.

Terrorism

"'Unbounded' morality ultimately becomes counterproductive even in terms of the same moral principles being sought. The law of diminishing returns applies to morality."
Thomas Sowell

There's a story about Robespierre that has the preeminent rabble-rouser of the French Revolution leaping up from his chair as soon as he saw a mob assembling outside.

"I must see which way the crowd is headed", he is reputed to have said: "For I am their leader."
http://www.salon.com/tech/books/1999/11/04/new_optimism/

People who exercise violence in the pursuit of what they hold to be just causes are alternately known as "terrorists" or "freedom fighters".

They all share a few common characteristics:

1. A hard core of idealists adopt a cause (in most cases, the freedom of a group of people). They base their claims on history - real or hastily concocted, on a common heritage, on a language shared by the members of the group and, most

important, on hate and contempt directed at an "enemy". The latter is, almost invariably, the physical or cultural occupier of space the idealists claim as their own.

2. The loyalties and alliances of these people shift effortlessly as ever escalating means justify an ever shrinking cause. The initial burst of grandiosity inherent in every such undertaking gives way to cynical and bitter pragmatism as both enemy and people tire of the conflict.

3. An inevitable result of the realpolitik of terrorism is the collaboration with the less savoury elements of society. Relegated to the fringes by the inexorable march of common sense, the freedom fighters naturally gravitate towards like minded non-conformists and outcasts. The organization is criminalized. Drug dealing, bank robbing and other manner of organized and contumacious criminality become integral extensions of the struggle. A criminal corporatism emerges, structured but volatile and given to internecine donnybrooks.

4. Very often an un-holy co-dependence develops between the organization and its prey. It is the interest of the freedom fighters to have a contemptible and tyrannical regime as their opponent. If not prone to suppression and convulsive massacres by nature - acts of terror will deliberately provoke even the most benign rule to abhorrent ebullition.

5. The terrorist organization will tend to emulate the very characteristics of its enemy it fulminates

against the most. Thus, all such groups are rebarbatively authoritarian, execrably violent, devoid of human empathy or emotions, suppressive, ostentatious, trenchant and often murderous.

6. It is often the freedom fighters who compromise their freedom and the freedom of their people in the most egregious manner. This is usually done either by collaborating with the derided enemy against another, competing set of freedom fighters - or by inviting a foreign power to arbiter. Thus, they often catalyse the replacement of one regime of oppressive horror with another, more terrible and entrenched.

7. Most freedom fighters are assimilated and digested by the very establishment they fought against or as the founders of new, privileged nomenklaturas. It is then that their true nature is exposed, mired in gulosity and superciliousness as they become. Inveterate violators of basic human rights, they often transform into the very demons they helped to exorcise.

Most freedom fighters are disgruntled members of the middle classes or the intelligentsia. They bring to their affairs the merciless ruthlessness of sheltered lives. Mistaking compassion for weakness, they show none as they unscrupulously pursue their self-aggrandizement, the ego trip of sending others to their death. They are the stuff martyrs are made of. Borne on the crests of circumstantial waves, they lever their unbalanced personalities and project them to great effect. They are the footnotes of history that assume the role of text. And they rarely enjoy the unmitigated support of the very people they proffer to

liberate. Even the most harangued and subjugated people find it hard to follow or accept the vicissitudinal behaviour of their self-appointed liberators, their shifting friendships and enmities and their pasilaly of violence.

Also Read

Terrorism as a Psychodynamic Phenomenon

Narcissists, Group Behavior, and Terrorism

Time

Time does not feature in the equations describing the world of elementary particles and in some border astrophysical conditions. There, there is time symmetry.

The world of the macro, on the other hand, is time asymmetric.

Time is, therefore, an epiphenomenon: it does not characterize the parts – though it emerges as a main property of the whole, as an extensive parameter of macro systems.

This Doctoral dissertation (Ph.D. Thesis available on Microfiche in UMI and from the Library of Congress) postulates the existence of a particle (Chronon). Time is the result of the interaction of Chronons, very much as other forces in nature are "transferred" in such interactions.

Torture

I. **Practical Considerations**

The problem of the "ticking bomb" - rediscovered after September 11 by Alan Dershowitz, a renowned criminal defense lawyer in the United States - is old hat. Should physical torture be applied - where psychological strain has failed - in order to discover the whereabouts of a ticking bomb and thus prevent a mass slaughter of the innocent? This apparent ethical dilemma has been confronted by ethicists and jurists from Great Britain to Israel.

Nor is Dershowitz's proposal to have the courts issue "torture warrants" (Los Angeles Times, November 8, 2001) unprecedented. In a controversial decision in 1996, the Supreme Court of Israel permitted its internal security forces to apply "moderate physical pressure" during the interrogation of suspects.

It has thus fully embraced the recommendation of the 1987 Landau Commission, presided over by a former Supreme Court judge. This blanket absolution was repealed in 1999 when widespread abuses against Palestinian detainees were unearthed by human rights organizations.

Indeed, this juridical reversal - in the face of growing suicidal terrorism - demonstrates how slippery the ethical slope can be. What started off as permission to apply mild torture in extreme cases avalanched into an all-pervasive and pernicious practice. This lesson - that torture is habit-forming and metastasizes incontrollably throughout the system - is the most powerful - perhaps the only - argument against it.

As Harvey Silverglate argued in his rebuttal of Dershowitz's aforementioned op-ed piece:

"Institutionalizing torture will give it society's imprimatur, lending it a degree of respectability. It will then be virtually impossible to curb not only the increasing frequency with which warrants will be sought - and granted - but also the inevitable rise in ***unauthorized*** use of torture. Unauthorized torture will increase not only to extract life-saving information, but also to obtain confessions (many of which will then prove false). It will also be used to punish real or imagined infractions, or for no reason other than human sadism. This is a genie we should not let out of the bottle."

Alas, these are weak contentions.

That something has the potential to be widely abused - and has been and is being widely misused - should not inevitably lead to its utter, universal, and unconditional proscription. Guns, cars, knives, and books have always been put to vile ends. Nowhere did this lead to their complete interdiction.

Moreover, torture is erroneously perceived by liberals as a kind of punishment. Suspects - innocent until proven guilty - indeed should not be subject to penalty. But torture is merely an interrogation technique. Ethically, it is no different to any other pre-trial process: shackling, detention, questioning, or bad press. Inevitably, the very act of suspecting someone is traumatic and bound to inflict pain and suffering - psychological, pecuniary, and physical - on the suspect.

True, torture is bound to yield false confessions and wrong information, Seneca claimed that it "forces even the innocent to lie". St. Augustine expounded on the moral deplorability of torture thus: "If the accused be innocent, he will undergo for an uncertain crime a certain

punishment, and that not for having committed a crime, but because it is unknown whether he committed it."

But the same can be said about other, less corporeal, methods of interrogation. Moreover, the flip side of ill-gotten admissions is specious denials of guilt. Criminals regularly disown their misdeeds and thus evade their penal consequences. The very threat of torture is bound to limit this miscarriage of justice. Judges and juries can always decide what confessions are involuntary and were extracted under duress.

Thus, if there was a way to ensure that non-lethal torture is narrowly defined, applied solely to extract time-critical information in accordance with a strict set of rules and specifications, determined openly and revised frequently by an accountable public body; that abusers are severely punished and instantly removed; that the tortured have recourse to the judicial system and to medical attention at any time - then the procedure would have been ethically justified in rare cases if carried out by the authorities.

In Israel, the Supreme Court upheld the right of the state to apply 'moderate physical pressure' to suspects in ticking bomb cases. It retained the right of appeal and review. A public committee established guidelines for state-sanctioned torture and, as a result, the incidence of rabid and rampant mistreatment has declined. Still, Israel's legal apparatus is flimsy, biased and inadequate. It should be augmented with a public - even international - review board and a rigorous appeal procedure.

This proviso - "if carried out by the authorities" - is crucial.

The sovereign has rights denied the individual, or any

subset of society. It can judicially kill with impunity. Its organs - the police, the military - can exercise violence. It is allowed to conceal information, possess illicit or dangerous substances, deploy arms, invade one's bodily integrity, or confiscate property. To permit the sovereign to torture while forbidding individuals, or organizations from doing so would, therefore, not be without precedent, or inconsistent.

Alan Dershowitz expounds:

"(In the United States) any interrogation technique, including the use of truth serum or even torture, is not prohibited. All that is prohibited is the introduction into evidence of the fruits of such techniques in a criminal trial against the person on whom the techniques were used. But the evidence could be used against that suspect in a non-criminal case - such as a deportation hearing - or against someone else."

When the unspeakable horrors of the Nazi concentration camps were revealed, C.S. Lewis wrote, in quite desperation:

"What was the sense in saying the enemy were in the wrong unless Right is a real thing which the Nazis at bottom knew as well as we did and ought to have practiced? If they had no notion of what we mean by Right, then, though we might still have had to fight them, we could no more have blamed them for that than for the color of their hair." (C.S. Lewis, Mere Christianity (New York: Macmillan, paperback edition, 1952).

But legal torture should never be directed at innocent civilians based on arbitrary criteria such as their race or religion. If this principle is observed, torture would not

reflect on the moral standing of the state. Identical acts are considered morally sound when carried out by the realm - and condemnable when discharged by individuals. Consider the denial of freedom. It is lawful incarceration at the hands of the republic - but kidnapping if effected by terrorists.

Nor is torture, as "The Economist" misguidedly claims, a taboo.

According to the 2002 edition of the "Encyclopedia Britannica", taboos are "the prohibition of an action or the use of an object based on ritualistic distinctions of them either as being sacred and consecrated or as being dangerous, unclean, and accursed." Evidently, none of this applies to torture. On the contrary, torture - as opposed, for instance, to incest - is a universal, state-sanctioned behavior.

Amnesty International - who should know better - professed to have been shocked by the results of their own surveys:

"In preparing for its third international campaign to stop torture, Amnesty International conducted a survey of its research files on 195 countries and territories. The survey covered the period from the beginning of 1997 to mid-2000. Information on torture is usually concealed, and reports of torture are often hard to document, so the figures almost certainly underestimate its extent. The statistics are shocking. There were reports of torture or ill-treatment by state officials in more than 150 countries. In more than 70, they were widespread or persistent. In more than 80 countries, people reportedly died as a result."

Countries and regimes abstain from torture - or, more

often, claim to do so - because such overt abstention is expedient. It is a form of global political correctness, a policy choice intended to demonstrate common values and to extract concessions or benefits from others. Giving up this efficient weapon in the law enforcement arsenal even in Damoclean circumstances is often rewarded with foreign direct investment, military aid, and other forms of support.

But such ethical magnanimity is a luxury in times of war, or when faced with a threat to innocent life. Even the courts of the most liberal societies sanctioned atrocities in extraordinary circumstances. Here the law conforms both with common sense and with formal, utilitarian, ethics.

II. **Ethical Considerations**

Rights - whether moral or legal - impose obligations or duties on third parties towards the right-holder. One has a right ***AGAINST*** other people and thus can prescribe to them certain obligatory behaviors and proscribe certain acts or omissions. Rights and duties are two sides of the same Janus-like ethical coin.

This duality confuses people. They often erroneously identify rights with their attendant duties or obligations, with the morally decent, or even with the morally permissible. One's rights inform other people how they ***MUST*** behave towards one - not how they ***SHOULD,*** or ***OUGHT*** to act morally. Moral behavior is not dependent on the existence of a right. Obligations are.

To complicate matters further, many apparently simple and straightforward rights are amalgams of more basic moral or legal principles. To treat such rights as unities is to mistreat them.

Take the right not to be tortured. It is a compendium of many distinct rights, among them: the right to bodily and mental integrity, the right to avoid self-incrimination, the right not to be pained, or killed, the right to save one's life (wrongly reduced merely to the right to self-defense), the right to prolong one's life (e.g., by receiving medical attention), and the right not to be forced to lie under duress.

None of these rights is self-evident, or unambiguous, or universal, or immutable, or automatically applicable. It is safe to say, therefore, that these rights are not primary - but derivative, nonessential, or mere "wants".

Moreover, the fact that the torturer also has rights whose violation may justify torture is often overlooked.

Consider these two, for instance:

The Rights of Third Parties against the Tortured

What is just and what is unjust is determined by an ethical calculus, or a social contract - both in constant flux. Still, it is commonly agreed that every person has the right not to be tortured, or killed unjustly.

Yet, even if we find an Archimedean immutable point of moral reference - does A's right not to be tortured, let alone killed, mean that third parties are to refrain from enforcing the rights of other people against A?

What if the only way to right wrongs committed, or about to be committed by A against others - was to torture, or kill A? There is a moral obligation to right wrongs by restoring, or safeguarding the rights of those wronged, or about to be wronged by A.

If the defiant silence - or even the mere existence - of A are predicated on the repeated and continuous violation of the rights of others (especially their right to live), and if these people object to such violation - then A must be tortured, or killed if that is the only way to right the wrong and re-assert the rights of A's victims.

This, ironically, is the argument used by liberals to justify abortion when the fetus (in the role of A) threatens his mother's rights to health and life.

The Right to Save One's Own Life

One has a right to save one's life by exercising self-defense or otherwise, by taking certain actions, or by avoiding them. Judaism - as well as other religious, moral, and legal systems - accepts that one has the right to kill a pursuer who knowingly and intentionally is bent on taking one's life. Hunting down Osama bin-Laden in the wilds of Afghanistan is, therefore, morally acceptable (though not morally mandatory). So is torturing his minions.

When there is a clash between equally potent rights - for instance, the conflicting rights to life of two people - we can decide among them randomly (by flipping a coin, or casting dice). Alternatively, we can add and subtract rights in a somewhat macabre arithmetic. The right to life definitely prevails over the right to comfort, bodily integrity, absence of pain and so on. Where life is at stake, non-lethal torture is justified by any ethical calculus.

Utilitarianism - a form of crass moral calculus - calls for the maximization of utility (life, happiness, pleasure). The lives, happiness, or pleasure of the many outweigh the life, happiness, or pleasure of the few. If by killing or torturing the few we (a) save the lives of the many (b) the

combined life expectancy of the many is longer than the combined life expectancy of the few and (c) there is no other way to save the lives of the many - it is morally permissible to kill, or torture the few.

III. **The Social Treaty**

There is no way to enforce certain rights without infringing on others. The calculus of ethics relies on implicit and explicit quantitative and qualitative hierarchies. The rights of the many outweigh certain rights of the few. Higher-level rights - such as the right to life - override rights of a lower order.

The rights of individuals are not absolute but "prima facie". They are restricted both by the rights of others and by the common interest. They are inextricably connected to duties towards other individuals in particular and the community in general. In other words, though not dependent on idiosyncratic cultural and social contexts, they are an integral part of a social covenant.

It can be argued that a suspect has excluded himself from the social treaty by refusing to uphold the rights of others - for instance, by declining to collaborate with law enforcement agencies in forestalling an imminent disaster. Such inaction amounts to the abrogation of many of one's rights (for instance, the right to be free). Why not apply this abrogation to his or her right not to be tortured?

Traumas, Prenatal and Natal

Neonates have no psychology. If operated upon, for instance, they are not supposed to show signs of trauma later on in life. Birth, according to this school of thought is of no psychological consequence to the newborn baby.

It is immeasurably more important to his "primary caregiver" (mother) and to her supporters (read: father and other members of the family). It is through them that the baby is, supposedly, effected. This effect is evident in his (I will use the male form only for convenience's sake) ability to bond. The late Karl Sagan professed to possess the diametrically opposed view when he compared the process of death to that of being born. He was commenting upon the numerous testimonies of people brought back to life following their confirmed, clinical death. Most of them shared an experience of traversing a dark tunnel. A combination of soft light and soothing voices and the figures of their deceased nearest and dearest awaited them at the end of this tunnel. All those who experienced it described the light as the manifestation of an omnipotent, benevolent being. The tunnel - suggested Sagan - is a rendition of the mother's tract. The process of birth involves gradual exposure to light and to the figures of humans. Clinical death experiences only recreate birth experiences.

The womb is a self-contained though open (not self-sufficient) ecosystem. The Baby's Planet is spatially confined, almost devoid of light and homeostatic. The fetus breathes liquid oxygen, rather than the gaseous variant. He is subjected to an unending barrage of noises, most of them rhythmical. Otherwise, there are very few stimuli to elicit any of his fixed action responses. There, dependent and protected, his world lacks the most evident features of ours. There are no dimensions where there is no light. There is no "inside" and "outside", "self" and "others", "extension" and "main body", "here" and "there". Our Planet is exactly converse. There could be no greater disparity. In this sense - and it is not a restricted sense at all - the baby is an alien. He has to train himself and to

learn to become human. Kittens, whose eyes were tied immediately after birth - could not "see" straight lines and kept tumbling over tightly strung cords. Even sense data involve some modicum and modes of conceptualization (see: "Appendix 5 - The Manifold of Sense").

Even lower animals (worms) avoid unpleasant corners in mazes in the wake of nasty experiences. To suggest that a human neonate, equipped with hundreds of neural cubic feet does not recall migrating from one planet to another, from one extreme to its total opposition - stretches credulity. Babies may be asleep 16-20 hours a day because they are shocked and depressed. These abnormal spans of sleep are more typical of major depressive episodes than of vigorous, vivacious, vibrant growth. Taking into consideration the mind-boggling amounts of information that the baby has to absorb just in order to stay alive - sleeping through most of it seems like an inordinately inane strategy. The baby seems to be awake in the womb more than he is outside it. Cast into the outer light, the baby tries, at first, to ignore reality. This is our first defence line. It stays with us as we grow up.

It has long been noted that pregnancy continues outside the womb. The brain develops and reaches 75% of adult size by the age of 2 years. It is completed only by the age of 10. It takes, therefore, ten years to complete the development of this indispensable organ – almost wholly outside the womb. And this "external pregnancy" is not limited to the brain only. The baby grows by 25 cm and by 6 kilos in the first year alone. He doubles his weight by his fourth month and triples it by his first birthday. The development process is not smooth but by fits and starts. Not only do the parameters of the body change – but its proportions do as well. In the first two years, for instance,

the head is larger in order to accommodate the rapid growth of the Central Nervous System. This changes drastically later on as the growth of the head is dwarfed by the growth of the extremities of the body. The transformation is so fundamental, the plasticity of the body so pronounced – that in most likelihood this is the reason why no operative sense of identity emerges until after the fourth year of childhood. It calls to mind Kafka's Gregor Samsa (who woke up to find that he is a giant cockroach). It is identity shattering. It must engender in the baby a sense of self-estrangement and loss of control over who is and what he is.

The motor development of the baby is heavily influenced both by the lack of sufficient neural equipment and by the ever-changing dimensions and proportions of the body. While all other animal cubs are fully motoric in their first few weeks of life – the human baby is woefully slow and hesitant. The motor development is proximodistal. The baby moves in ever widening concentric circles from itself to the outside world. First the whole arm, grasping, then the useful fingers (especially the thumb and forefinger combination), first batting at random, then reaching accurately. The inflation of its body must give the baby the impression that he is in the process of devouring the world. Right up to his second year the baby tries to assimilate the world through his mouth (which is the prima causa of his own growth). He divides the world into "suckable" and "insuckable" (as well as to "stimuli-generating" and "not generating stimuli"). His mind expands even faster than his body. He must feel that he is all-encompassing, all-inclusive, all-engulfing, all-pervasive. This is why a baby has no object permanence. In other words, a baby finds it hard to believe the existence of other objects if he does not see them (=if they

are not IN his eyes). They all exist in his outlandishly exploding mind and only there. The universe cannot accommodate a creature, which doubles itself physically every 4 months as well as objects outside the perimeter of such an inflationary being, the baby "believes". The inflation of the body has a correlate in the inflation of consciousness. These two processes overwhelm the baby into a passive absorption and inclusion mode.

To assume that the child is born a "tabula rasa" is superstition. Cerebral processes and responses have been observed in utero. Sounds condition the EEG of fetuses. They startle at loud, sudden noises. This means that they can hear and interpret what they hear. Fetuses even remember stories read to them while in the womb. They prefer these stories to others after they are born. This means that they can tell auditory patterns and parameters apart. They tilt their head at the direction sounds are coming from. They do so even in the absence of visual cues (e.g., in a dark room). They can tell the mother's voice apart (perhaps because it is high pitched and thus recalled by them). In general, babies are tuned to human speech and can distinguish sounds better than adults do. Chinese and Japanese babies react differently to "pa" and to "ba", to "ra" and to "la". Adults do not – which is the source of numerous jokes.

The equipment of the newborn is not limited to the auditory. He has clear smell and taste preferences (he likes sweet things a lot). He sees the world in three dimensions with a perspective (a skill which he could not have acquired in the dark womb). Depth perception is well developed by the sixth month of life.

Expectedly, it is vague in the first four months of life. When presented with depth, the baby realizes that

something is different – but not what. Babies are born with their eyes open as opposed to most other animal young ones. Moreover, their eyes are immediately fully functional. It is the interpretation mechanism that is lacking and this is why the world looks fuzzy to them. They tend to concentrate on very distant or on very close objects (their own hand getting closer to their face). They see very clearly objects 20-25 cm away. But visual acuity and focusing improve in a matter of days. By the time the baby is 6 to 8 months old, he sees as well as many adults do, though the visual system – from the neurological point of view – is fully developed only at the age of 3 or 4 years. The neonate discerns some colours in the first few days of his life: yellow, red, green, orange, gray – and all of them by the age of four months. He shows clear preferences regarding visual stimuli: he is bored by repeated stimuli and prefers sharp contours and contrasts, big objects to small ones, black and white to coloured (because of the sharper contrast), curved lines to straight ones (this is why babies prefer human faces to abstract paintings). They prefer their mother to strangers. It is not clear how they come to recognize the mother so quickly. To say that they collect mental images which they then arrange into a prototypical scheme is to say nothing (the question is not "what" they do but "how" they do it). This ability is a clue to the complexity of the internal mental world of the neonate, which far exceeds our learned assumptions and theories. It is inconceivable that a human is born with all this exquisite equipment while incapable of experiencing the birth trauma or the even the bigger trauma of his own inflation, mental and physical.

As early as the end of the third month of pregnancy, the fetus moves, his heart beats, his head is enormous relative to his size. His size, though, is less than 3 cm. Ensconced

in the placenta, the fetus is fed by substances transmitted through the mother's blood vessels (he has no contact with her blood, though). The waste that he produces is carried away in the same venue. The composition of the mother's food and drink, what she inhales and injects – all are communicated to the embryo. There is no clear relationship between sensory inputs during pregnancy and later life development. The levels of maternal hormones do effect the baby's subsequent physical development but only to a negligible extent. Far more important is the general state of health of the mother, a trauma, or a disease of the fetus. It seems that the mother is less important to the baby than the romantics would have it – and cleverly so. A too strong attachment between mother and fetus would have adversely affected the baby's chances of survival outside the uterus. Thus, contrary to popular opinion, there is no evidence whatsoever that the mother's emotional, cognitive, or attitudinal state effects the fetus in any way. The baby is effected by viral infections, obstetric complications, by protein malnutrition and by the mother's alcoholism. But these – at least in the West – are rare conditions.

In the first three months of the pregnancy, the central nervous system "explodes" both quantitatively and qualitatively. This process is called metaplasia. It is a delicate chain of events, greatly influenced by malnutrition and other kinds of abuse. But this vulnerability does not disappear until the age of 6 years out of the womb. There is a continuum between womb and world. The newborn is almost a very developed kernel of humanity. He is definitely capable of experiencing substantive dimensions of his own birth and subsequent metamorphoses. Neonates can immediately track colours – therefore, they must be immediately able to tell the

striking differences between the dark, liquid placenta and the colourful maternity ward. They go after certain light shapes and ignore others. Without accumulating any experience, these skills improve in the first few days of life, which proves that they are inherent and not contingent (learned). They seek patterns selectively because they remember which pattern was the cause of satisfaction in their very brief past. Their reactions to visual, auditory and tactile patterns are very predictable. Therefore, they must possess a MEMORY, however primitive.

But – even granted that babies can sense, remember and, perhaps emote – what is the effect of the multiple traumas they are exposed to in the first few months of their lives?

We mentioned the traumas of birth and of self-inflation (mental and physical). These are the first links in a chain of traumas, which continues throughout the first two years of the baby's life. Perhaps the most threatening and destabilizing is the trauma of separation and individuation.

The baby's mother (or caregiver – rarely the father, sometimes another woman) is his auxiliary ego. She is also the world; a guarantor of livable (as opposed to unbearable) life, a (physiological or gestation) rhythm (=predictability), a physical presence and a social stimulus (an other).

To start with, the delivery disrupts continuous physiological processes not only quantitatively but also qualitatively. The neonate has to breathe, to feed, to eliminate waste, to regulate his body temperature – new functions, which were previously performed by the mother. This physiological catastrophe, this schism

increases the baby's dependence on the mother. It is through this bonding that he learns to interact socially and to trust others. The baby's lack of ability to tell the inside world from the outside only makes matters worse. He "feels" that the upheaval is contained in himself, that the tumult is threatening to tear him apart, he experiences implosion rather than explosion. True, in the absence of evaluative processes, the quality of the baby's experience will be different to ours. But this does not disqualify it as a PSYCHOLOGICAL process and does not extinguish the subjective dimension of the experience. If a psychological process lacks the evaluative or analytic elements, this lack does not question its existence or its nature. Birth and the subsequent few days must be a truly terrifying experience.

Another argument raised against the trauma thesis is that there is no proof that cruelty, neglect, abuse, torture, or discomfort retard, in any way, the development of the child. A child – it is claimed – takes everything in stride and reacts "naturally" to his environment, however depraved and deprived.

This may be true – but it is irrelevant. It is not the child's development that we are dealing with here. It is its reactions to a series of existential traumas. That a process or an event has no influence later – does not mean that it has no effect at the moment of occurrence. That it has no influence at the moment of occurrence – does not prove that it has not been fully and accurately registered. That it has not been interpreted at all or that it has been interpreted in a way different from ours – does not imply that it had no effect. In short: there is no connection between experience, interpretation and effect. There can exist an interpreted experience that has no effect. An interpretation can result in an effect without any

experience involved. And an experience can effect the subject without any (conscious) interpretation. This means that the baby can experience traumas, cruelty, neglect, abuse and even interpret them as such (i.e., as bad things) and still not be effected by them. Otherwise, how can we explain that a baby cries when confronted by a sudden noise, a sudden light, wet diapers, or hunger? Isn't this proof that he reacts properly to "bad" things and that there is such a class of things ("bad things") in his mind?

Moreover, we must attach some epigenetic importance to some of the stimuli. If we do, in effect we recognize the effect of early stimuli upon later life development.

At their beginning, neonates are only vaguely aware, in a binary sort of way.

l. "Comfortable/uncomfortable", "cold/warm", "wet/dry", "colour/absence of colour", "light/dark", "face/no face" and so on. There are grounds to believe that the distinction between the outer world and the inner one is vague at best. Natal fixed action patterns (rooting, sucking, postural adjustment, looking, listening, grasping, and crying) invariably provoke the caregiver to respond. The newborn, as we said earlier, is able to relate to physical patterns but his ability seems to extend to the mental as well. He sees a pattern: fixed action followed by the appearance of the caregiver followed by a satisfying action on the part of the caregiver. This seems to him to be an inviolable causal chain (though precious few babies would put it in these words). Because he is unable to distinguish his inside from the outside – the newborn "believes" that his action evoked the caregiver from the inside (in which the caregiver is contained). This is the kernel of both magical thinking and Narcissism. The baby attributes to himself magical powers of omnipotence and

of omnipresence (action-appearance). It also loves itself very much because it is able to thus satisfy himself and his needs. He loves himself because he has the means to make himself happy. The tension-relieving and pleasurable world comes to life through the baby and then he swallows it back through his mouth. This incorporation of the world through the sensory modalities is the basis for the "oral stage" in the psychodynamic theories.

This self-containment and self-sufficiency, this lack of recognition of the environment are why children until their third year of life are such a homogeneous group (allowing for some variance). Infants show a characteristic style of behaviour (one is almost tempted to say, a universal character) in as early as the first few weeks of their lives. The first two years of life witness the crystallization of consistent behavioural patterns, common to all children. It is true that even newborns have an innate temperament but not until an interaction with the outside environment is established – do the traits of individual diversity appear.

At birth, the newborn shows no attachment but simple dependence. It is easy to prove: the child indiscriminately reacts to human signals, scans for patterns and motions, enjoys soft, high pitched voices and cooing, soothing sounds. Attachment starts physiologically in the fourth week. The child turns clearly towards his mother's voice, ignoring others. He begins to develop a social smile, which is easily distinguishable from his usual grimace. A virtuous circle is set in motion by the child's smiles, gurgles and coos. These powerful signals release social behaviour, elicit attention, loving responses. This, in turn, drives the child to increase the dose of his signaling activity. These signals are, of course, reflexes (fixed

action responses, exactly like the palmar grasp). Actually, until the 18th week of his life, the child continues to react to strangers favourably. Only then does the child begin to develop a budding social-behavioural system based on the high correlation between the presence of his caregiver and gratifying experiences. By the third month there is a clear preference of the mother and by the sixth month, the child wants to venture into the world. At first, the child grasps things (as long as he can see his hand). Then he sits up and watches things in motion (if not too fast or noisy). Then the child clings to the mother, climbs all over her and explores her body. There is still no object permanence and the child gets perplexed and loses interest if a toy disappears under a blanket, for instance. The child still associates objects with satisfaction/non-satisfaction. His world is still very much binary.

As the child grows, his attention narrows and is dedicated first to the mother and to a few other human figures and, by the age of 9 months, only to the mother. The tendency to seek others virtually disappears (which is reminiscent of imprinting in animals). The infant tends to equate his movements and gestures with their results – that is, he is still in the phase of magical thinking.

The separation from the mother, the formation of an individual, the separation from the world (the "spewing out" of the outside world) – are all tremendously traumatic.

The infant is afraid to lose his mother physically (no "mother permanence") as well as emotionally (will she be angry at this new found autonomy?). He goes away a step or two and runs back to receive the mother's reassurance that she still loves him and that she is still there. The tearing up of one's self into my SELF and the OUTSIDE

WORLD is an unimaginable feat. It is equivalent to discovering irrefutable proof that the universe is an illusion created by the brain or that our brain belongs to a universal pool and not to us, or that we are God (the child discovers that he is not God, it is a discovery of the same magnitude). The child's mind is shredded to pieces: some pieces are still HE and others are NOT HE (=the outside world). This is an absolutely psychedelic experience (and the root of all psychoses, probably).

If not managed properly, if disturbed in some way (mainly emotionally), if the separation – individuation process goes awry, it could result in serious psychopathologies. There are grounds to believe that several personality disorders (Narcissistic and Borderline) can be traced to a disturbance in this process in early childhood.

Then, of course, there is the on-going traumatic process that we call "life".

Traumas (as Social Interactions)

("He" in this text - to mean "He" or "She").

We react to serious mishaps, life altering setbacks, disasters, abuse, and death by going through the phases of grieving. Traumas are the complex outcomes of psychodynamic and biochemical processes. But the particulars of traumas depend heavily on the interaction between the victim and his social milieu.

It would seem that while the victim progresses from denial to helplessness, rage, depression and thence to acceptance of the traumatizing events - society demonstrates a diametrically opposed progression. This incompatibility, this mismatch of psychological phases is

what leads to the formation and crystallization of trauma.

PHASE I

Victim phase I - DENIAL

The magnitude of such unfortunate events is often so overwhelming, their nature so alien, and their message so menacing - that denial sets in as a defence mechanism aimed at self preservation. The victim denies that the event occurred, that he or she is being abused, that a loved one passed away.

Society phase I - ACCEPTANCE, MOVING ON

The victim's nearest ("Society") - his colleagues, his employees, his clients, even his spouse, children, and friends - rarely experience the events with the same shattering intensity. They are likely to accept the bad news and move on. Even at their most considerate and empathic, they are likely to lose patience with the victim's state of mind. They tend to ignore the victim, or chastise him, to mock, or to deride his feelings or behaviour, to collude to repress the painful memories, or to trivialize them.

Summary Phase I

The mismatch between the victim's reactive patterns and emotional needs and society's matter-of-fact attitude hinders growth and healing. The victim requires society's help in avoiding a head-on confrontation with a reality he cannot digest. Instead, society serves as a constant and mentally destabilizing reminder of the root of the victim's unbearable agony (the Job syndrome).

PHASE II

Victim phase II - HELPLESSNESS

Denial gradually gives way to a sense of all-pervasive and humiliating helplessness, often accompanied by debilitating fatigue and mental disintegration. These are among the classic symptoms of PTSD (Post Traumatic Stress Disorder). These are the bitter results of the internalization and integration of the harsh realization that there is nothing one can do to alter the outcomes of a natural, or man-made, catastrophe. The horror in confronting one's finiteness, meaninglessness, negligibility, and powerlessness - is overpowering.

Society phase II - DEPRESSION

The more the members of society come to grips with the magnitude of the loss, or evil, or threat represented by the grief inducing events - the sadder they become. Depression is often little more than suppressed or self-directed anger. The anger, in this case, is belatedly induced by an identified or diffuse source of threat, or of evil, or loss. It is a higher level variant of the "fight or flight" reaction, tampered by the rational understanding that the "source" is often too abstract to tackle directly.

Summary Phase II

Thus, when the victim is most in need, terrified by his helplessness and adrift - society is immersed in depression and unable to provide a holding and supporting environment. Growth and healing is again retarded by social interaction. The victim's innate sense of annulment is enhanced by the self-addressed anger (=depression) of those around him.

PHASE III

Both the victim and society react with RAGE to their predicaments. In an effort to narcissistically reassert himself, the victim develops a grandiose sense of anger directed at paranoidally selected, unreal, diffuse, and abstract targets (=frustration sources). By expressing aggression, the victim re-acquires mastery of the world and of himself.

Members of society use rage to re-direct the root cause of their depression (which is, as we said, self directed anger) and to channel it safely. To ensure that this expressed aggression alleviates their depression - real targets must are selected and real punishments meted out. In this respect, "social rage" differs from the victim's. The former is intended to sublimate aggression and channel it in a socially acceptable manner - the latter to reassert narcissistic self-love as an antidote to an all-devouring sense of helplessness.

In other words, society, by itself being in a state of rage, positively enforces the narcissistic rage reactions of the grieving victim. This, in the long run, is counter-productive, inhibits personal growth, and prevents healing. It also erodes the reality test of the victim and encourages self-delusions, paranoidal ideation, and ideas of reference.

PHASE IV

Victim Phase IV - DEPRESSION

As the consequences of narcissistic rage - both social and personal - grow more unacceptable, depression sets in. The victim internalizes his aggressive impulses. Self directed rage is safer but is the cause of great sadness and even suicidal ideation. The victim's depression is a way of

conforming to social norms. It is also instrumental in ridding the victim of the unhealthy residues of narcissistic regression. It is when the victim acknowledges the malignancy of his rage (and its anti-social nature) that he adopts a depressive stance.

Society Phase IV - HELPLESSNESS

People around the victim ("society") also emerge from their phase of rage transformed. As they realize the futility of their rage, they feel more and more helpless and devoid of options. They grasp their limitations and the irrelevance of their good intentions. They accept the inevitability of loss and evil and Kafkaesquely agree to live under an ominous cloud of arbitrary judgement, meted out by impersonal powers.

Summary Phase IV

Again, the members of society are unable to help the victim to emerge from a self-destructive phase. His depression is enhanced by their apparent helplessness. Their introversion and inefficacy induce in the victim a feeling of nightmarish isolation and alienation. Healing and growth are once again retarded or even inhibited.

PHASE V

Victim Phase V - ACCEPTANCE AND MOVING ON

Depression - if pathologically protracted and in conjunction with other mental health problems - sometimes leads to suicide. But more often, it allows the victim to process mentally hurtful and potentially harmful material and paves the way to acceptance. Depression is a laboratory of the psyche. Withdrawal from social pressures enables the direct transformation of anger into

other emotions, some of them otherwise socially unacceptable. The honest encounter between the victim and his own (possible) death often becomes a cathartic and self-empowering inner dynamic. The victim emerges ready to move on.

Society Phase V - DENIAL

Society, on the other hand, having exhausted its reactive arsenal - resorts to denial. As memories fade and as the victim recovers and abandons his obsessive-compulsive dwelling on his pain - society feels morally justified to forget and forgive. This mood of historical revisionism, of moral leniency, of effusive forgiveness, of re-interpretation, and of a refusal to remember in detail - leads to a repression and denial of the painful events by society.

Summary Phase V

This final mismatch between the victim's emotional needs and society's reactions is less damaging to the victim. He is now more resilient, stronger, more flexible, and more willing to forgive and forget. Society's denial is really a denial of the victim. But, having ridden himself of more primitive narcissistic defences - the victim can do without society's acceptance, approval, or look. Having endured the purgatory of grieving, he has now re-acquired his self, independent of society's acknowledgement.

Trust (in Economic Life)

Economics acquired its dismal reputation by pretending to be an exact science rather than a branch of mass psychology. In truth it is a narrative struggling to describe the aggregate behavior of humans. It seeks to cloak its

uncertainties and shifting fashions with mathematical formulae and elaborate econometric computerized models.

So much is certain, though - that people operate within markets, free or regulated, patchy or organized. They attach numerical (and emotional) values to their inputs (work, capital) and to their possessions (assets, natural endowments). They communicate these values to each other by sending out signals known as prices.

Yet, this entire edifice - the market and its price mechanism - critically depends on trust. If people do not trust each other, or the economic "envelope" within which they interact - economic activity gradually grinds to a halt. There is a strong correlation between the general level of trust and the extent and intensity of economic activity. Francis Fukuyama, the political scientist, distinguishes between high-trust and prosperous societies and low-trust and, therefore, impoverished collectives. Trust underlies economic success, he argued in a 1995 tome.

Trust is not a monolithic quantity. There are a few categories of economic trust. Some forms of trust are akin to a public good and are closely related to governmental action or inaction, the reputation of the state and its institutions, and its pronounced agenda. Other types of trust are the outcomes of kinship, ethnic origin, personal standing and goodwill, corporate brands and other data generated by individuals, households, and firms.

I. Trust in the playing field

To transact, people have to maintain faith in a relevant economic horizon and in the immutability of the economic playing field or "envelope". Put less obscurely,

a few hidden assumptions underlie the continued economic activity of market players.

They assume, for instance, that the market will continue to exist for the foreseeable future in its current form. That it will remain inert - unhindered by externalities like government intervention, geopolitical upheavals, crises, abrupt changes in accounting policies and tax laws, hyperinflation, institutional and structural reform and other market-deflecting events and processes.

They further assume that their price signals will not be distorted or thwarted on a consistent basis thus skewing the efficient and rational allocation of risks and rewards. Insider trading, stock manipulation, monopolies, hoarding - all tend to consistently but unpredictably distort price signals and, thus, deter market participation.

Market players take for granted the existence and continuous operation of institutions - financial intermediaries, law enforcement agencies, courts. It is important to note that market players prefer continuity and certainty to evolution, however gradual and ultimately beneficial. A venal bureaucrat is a known quantity and can be tackled effectively. A period of transition to good and equitable governance can be more stifling than any level of corruption and malfeasance. This is why economic activity drops sharply whenever institutions are reformed.

II. Trust in other players

Market players assume that other players are (generally) rational, that they have intentions, that they intend to maximize their benefits and that they are likely to act on their intentions in a legal (or rule-based), rational manner.

III. Trust in market liquidity

Market players assume that other players possess or have access to the liquid means they need in order to act on their intentions and obligations. They know, from personal experience, that idle capital tends to dwindle and that the only way to, perhaps, maintain or increase it is to transact with others, directly or through intermediaries, such as banks.

IV. Trust in others' knowledge and ability

Market players assume that other players possess or have access to the intellectual property, technology, and knowledge they need in order to realize their intentions and obligations. This implicitly presupposes that all other market players are physically, mentally, legally and financially able and willing to act their parts as stipulated, for instance, in contracts they sign.

The emotional dimensions of contracting are often neglected in economics. Players assume that their counterparts maintain a realistic and stable sense of self-worth based on intimate knowledge of their own strengths and weaknesses. Market participants are presumed to harbor realistic expectations, commensurate with their skills and accomplishments. Allowance is made for exaggeration, disinformation, even outright deception - but these are supposed to be marginal phenomena.

When trust breaks down - often the result of an external or internal systemic shock - people react expectedly. The number of voluntary interactions and transactions decreases sharply. With a collapsed investment horizon, individuals and firms become corrupt in an effort to shortcut their way into economic benefits, not knowing how long will the system survive. Criminal activity increases.

People compensate with fantasies and grandiose delusions for their growing sense of uncertainty, helplessness, and fears. This is a self-reinforcing mechanism, a vicious cycle which results in under-confidence and a fluctuating self esteem. They develop psychological defence mechanisms.

Cognitive dissonance ("I really choose to be poor rather than heartless"), pathological envy (seeks to deprive others and thus gain emotional reward), rigidity ("I am like that, my family or ethnic group has been like that for generations, there is nothing I can do"), passive-aggressive behavior (obstructing the work flow, absenteeism, stealing from the employer, adhering strictly to arcane regulations) - are all reactions to a breakdown in one or more of the four aforementioned types of trust. Furthermore, people in a trust crisis are unable to postpone gratification. They often become frustrated, aggressive, and deceitful if denied. They resort to reckless behavior and stopgap economic activities.

In economic environments with compromised and impaired trust, loyalty decreases and mobility increases. People switch jobs, renege on obligations, fail to repay debts, relocate often. Concepts like exclusivity, the sanctity of contracts, workplace loyalty, or a career path - all get eroded. As a result, little is invested in the future, in the acquisition of skills, in long term savings. Short-termism and bottom line mentality rule.

The outcomes of a crisis of trust are, usually, catastrophic:

Economic activity is much reduced, human capital is corroded and wasted, brain drain increases, illegal and extra-legal activities rise, society is polarized between haves and haves-not, interethnic and inter-racial tensions increase. To rebuild trust in such circumstances is a

daunting task. The loss of trust is contagious and, finally, it infects every institution and profession in the land. It is the stuff revolutions are made of.

Turing Machines

In 1936 an American (Alonzo Church) and a Briton (Alan M. Turing) published independently (as is often the coincidence in science) the basics of a new branch in Mathematics (and logic): computability or recursive functions (later to be developed into Automata Theory).

The authors confined themselves to dealing with computations which involved "effective" or "mechanical" methods for finding results (which could also be expressed as solutions (values) to formulae). These methods were so called because they could, in principle, be performed by simple machines (or human-computers or human-calculators, to use Turing's unfortunate phrases). The emphasis was on finiteness: a finite number of instructions, a finite number of symbols in each instruction, a finite number of steps to the result. This is why these methods were usable by humans without the aid of an apparatus (with the exception of pencil and paper as memory aids). Moreover: no insight or ingenuity were allowed to "interfere" or to be part of the solution seeking process.

What Church and Turing did was to construct a set of all the functions whose values could be obtained by applying effective or mechanical calculation methods. Turing went further down Church's road and designed the "Turing Machine" – a machine which can calculate the values of all the functions whose values can be found using effective or mechanical methods. Thus, the program running the TM (=Turing Machine in the rest of this text)

was really an effective or mechanical method. For the initiated readers: Church solved the decision-problem for propositional calculus and Turing proved that there is no solution to the decision problem relating to the predicate calculus. Put more simply, it is possible to "prove" the truth value (or the theorem status) of an expression in the propositional calculus – but not in the predicate calculus. Later it was shown that many functions (even in number theory itself) were not recursive, meaning that they could not be solved by a Turing Machine.

No one succeeded to prove that a function must be recursive in order to be effectively calculable. This is (as Post noted) a "working hypothesis" supported by overwhelming evidence. We don't know of any effectively calculable function which is not recursive, by designing new TMs from existing ones we can obtain new effectively calculable functions from existing ones and TM computability stars in every attempt to understand effective calculability (or these attempts are reducible or equivalent to TM computable functions).

The Turing Machine itself, though abstract, has many "real world" features. It is a blueprint for a computing device with one "ideal" exception: its unbounded memory (the tape is infinite). Despite its hardware appearance (a read/write head which scans a two-dimensional tape inscribed with ones and zeroes, etc.) – it is really a software application, in today's terminology. It carries out instructions, reads and writes, counts and so on. It is an automaton designed to implement an effective or mechanical method of solving functions (determining the truth value of propositions). If the transition from input to output is deterministic we have a classical automaton – if it is determined by a table of probabilities – we have a

probabilistic automaton.

With time and hype, the limitations of TMs were forgotten. No one can say that the Mind is a TM because no one can prove that it is engaged in solving only recursive functions. We can say that TMs can do whatever digital computers are doing – but not that digital computers are TMs by definition. Maybe they are – maybe they are not. We do not know enough about them and about their future.

Moreover, the demand that recursive functions be computable by an UNAIDED human seems to restrict possible equivalents. Inasmuch as computers emulate human computation (Turing did believe so when he helped construct the ACE, at the time the fastest computer in the world) – they are TMs. Functions whose values are calculated by AIDED humans with the contribution of a computer are still recursive. It is when humans are aided by other kinds of instruments that we have a problem. If we use measuring devices to determine the values of a function it does not seem to conform to the definition of a recursive function. So, we can generalize and say that functions whose values are calculated by an AIDED human could be recursive, depending on the apparatus used and on the lack of ingenuity or insight (the latter being, anyhow, a weak, non-rigorous requirement which cannot be formalized).

Quantum mechanics is the branch of physics which describes the microcosm. It is governed by the Schrodinger Equation (SE). This SE is an amalgamation of smaller equations, each with its own space coordinates as variables, each describing a separate physical system. The SE has numerous possible solutions, each pertaining to a possible state of the atom in question. These solutions

are in the form of wavefunctions (which depend, again, on the coordinates of the systems and on their associated energies). The wavefunction describes the probability of a particle (originally, the electron) to be inside a small volume of space defined by the aforementioned coordinates. This probability is proportional to the square of the wavefunction. This is a way of saying: "we cannot really predict what will exactly happen to every single particle. However, we can foresee (with a great measure of accuracy) what will happen if to a large population of particles (where will they be found, for instance)."

This is where the first of two major difficulties arose:

To determine what will happen in a specific experiment involving a specific particle and experimental setting – an observation must be made. This means that, in the absence of an observing and measuring human, flanked by all the necessary measurement instrumentation – the outcome of the wavefunction cannot be settled. It just continues to evolve in time, describing a dizzyingly growing repertoire of options. Only a measurement (=the involvement of a human or, at least, a measuring device which can be read by a human) reduces the wavefunction to a single solution, collapses it.

A wavefunction is a function. Its REAL result (the selection in reality of one of its values) is determined by a human, equipped with an apparatus. Is it recursive (TM computable and compatible)? In a way, it is. Its values can be effectively and mechanically computed. The value selected by measurement (thus terminating the propagation of the function and its evolution in time by zeroing its the other terms, bar the one selected) is one of the values which can be determined by an effective-mechanical method. So, how should we treat the

measurement? No interpretation of quantum mechanics gives us a satisfactory answer. It seems that a probabilistic automaton which will deal with semi recursive functions will tackle the wavefunction without any discernible difficulties – but a new element must be introduced to account for the measurement and the resulting collapse. Perhaps a "boundary" or a "catastrophic" automaton will do the trick.

The view that the quantum process is computable seems to be further supported by the mathematical techniques which were developed to deal with the application of the Schrodinger equation to a multi-electron system (atoms more complex than hydrogen and helium). The Hartree-Fok method assumes that electrons move independent of each other and of the nucleus. They are allowed to interact only through the average electrical field (which is the charge of the nucleus and the charge distribution of the other electrons). Each electron has its own wavefunction (known as: "orbital") – which is a rendition of the Pauli Exclusion Principle.

The problem starts with the fact that the electric field is unknown. It depends on the charge distribution of the electrons which, in turn, can be learnt from the wavefunctions. But the solutions of the wavefunctions require a proper knowledge of the field itself!

Thus, the SE is solved by successive approximations. First, a field is guessed, the wavefunctions are calculated, the charge distribution is derived and fed into the same equation in an ITERATIVE process to yield a better approximation of the field. This process is repeated until the final charge and the electrical field distribution agree with the input to the SE.

Recursion and iteration are close cousins. The Hartree-Fok method demonstrates the recursive nature of the functions involved. We can say the SE is a partial differential equation which is solvable (asymptotically) by iterations which can be run on a computer. Whatever computers can do – TMs can do. Therefore, the Hartree-Fok method is effective and mechanical. There is no reason, in principle, why a Quantum Turing Machine could not be constructed to solve SEs or the resulting wavefunctions. Its special nature will set it apart from a classical TM: it will be a probabilistic automaton with catastrophic behaviour or very strong boundary conditions (akin, perhaps, to the mathematics of phase transitions).

Classical TMs (CTMs, Turing called them Logical Computing Machines) are macroscopic, Quantum TMs (QTMs) will be microscopic. Perhaps, while CTMs will deal exclusively with recursive functions (effective or mechanical methods of calculation) – QTMs could deal with half-effective, semi-recursive, probabilistic, catastrophic and other methods of calculations (other types of functions).

The third level is the Universe itself, where all the functions have their values. From the point of view of the Universe (the equivalent of an infinite TM), all the functions are recursive, for all of them there are effective-mechanical methods of solution. The Universe is the domain or set of all the values of all the functions and its very existence guarantees that there are effective and mechanical methods to solve them all. No decision problem can exist on this scale (or all decision problems are positively solved). The Universe is made up only of proven, provable propositions and of theorems. This is a reminder of our finiteness and to say otherwise would,

surely, be intellectual vanity.

Tyrants (Purging vs. Co-opting)

History teaches us that there are two types of tyrants. Those who preserve the structures and forces that carry them to power - and those who, once they have attained their goal of unbridled domination, seek to destroy the organizations and people they had used to get to where they are.

Adolf Hitler, Saddam Hussein, and Josip Broz Tito are examples of co-opting tyrants. Though Hitler was forced to liquidate the rebellious SA in 1934, he kept the Nazi party intact and virtually unchanged until the end. He surrounded himself with fanatic (and self-serving) loyalists and the composition of his retinue remained the same throughout the life of his regime. The concept of Alte Kampfer (veteran fighter) was hallowed and the mythology of Nazism extolled loyalty and community (Gemeinschaft) above opportunistic expedience and conspiratorial paranoia.

Joseph Stalin, Pol Pot, and Mao are prime specimen of the purging tyrant. Stalin spent the better part of 30 years eliminating not only the opposition - but the entire Leninist-Bolshevik political party that brought him to power in the first place. He then proceeded to cold-bloodedly exterminate close to 20 million professionals, intellectuals, army officers, and other achievers and leaders on whose toil and talents his alleged successes rested.

Co-opting tyrants consolidate their power by continually expanding the base of their supporters and the concomitant networks of patronage. They encourage blind

obedience (the Fuehrerprinzip) and devotion. They thrive on personal interaction with sycophants and adulators. They foster a cult-like shared psychosis in their adherents.

Purging tyrants consolidate their power by removing all independent thinkers and achievers from the scene, re-writing history in a self-aggrandizing manner, and then raising a new generation of ambitious, young acolytes who know only the tyrant and his reign and regard both as a force of nature. They rule through terror and encourage paranoia on all levels. They foster the atomization of society in a form of micromanaged application of the tried and true rule of "divide et impera".

U-V-W

Uniqueness

Is being special or unique a property of an object (let us say, a human being), independent of the existence or the actions of observers - or is this a product of a common judgement of a group of people?

In the first case - every human being is "special", "one of a kind, sui generis, unique". This property of being unique is context-independent, a Ding am Sich. It is the derivative of a unique assembly with a one-of-its-kind list of specifications, personal history, character, social network, etc. Indeed, no two individuals are identical. The question in the narcissist's mind is where does this difference turn into uniqueness? In other words, there are numerous characteristics and traits common to two specimen of the same species. On the other hand, there are characteristics and traits, which set them apart. There must exist a quantitative point where it would be safe to say that the difference outweighs the similarity, the "Point of Uniqueness", wherein individuals are rendered unique.

But, as opposed to members of other species, differences between humans (personal history, personality, memories, biography) so outweigh similarities - that we can safely postulate, prima facie, that all human beings are unique.

To non-narcissists, this should be a very comforting thought. Uniqueness is not dependent on the existence of an outside observer. It is the by-product of existence, an extensive trait, and not the result of an act of comparison performed by others.

But what happens if only one individual is left in the

world? Can he then still be said to be unique?

Ostensibly, yes. The problem is then reduced to the absence of someone able to observe, discern and communicate this uniqueness to others. But does this detract from the fact of his uniqueness in any way?

Is a fact not communicated no longer a fact? In the human realm, this seems to be the case. If uniqueness is dependent on it being proclaimed - then the more it is proclaimed, the greater the certainty that it exists. In this restricted sense, uniqueness is indeed the result of the common judgement of a group of people. The larger the group - the larger the certainty that it exists.

To wish to be unique is a universal human property. The very existence of uniqueness is not dependent on the judgement of a group of humans.

Uniqueness is communicated through sentences (theorems) exchanged between humans. The certainty that uniqueness exists IS dependent upon the judgement of a group of humans. The greater the number of persons communicating the existence of a uniqueness - the greater the certainty that it exists.

But why does the narcissist feel that it is important to ascertain the existence of his uniqueness? To answer that, we must distinguish exogenous from endogenous certainty.

Most people find it sufficient to have a low level of exogenous certainty regarding their own uniqueness. This is achieved with the help of their spouse, colleagues, friends, acquaintances and even random (but meaningful) encounters. This low level of exogenous certainty is, usually, accompanied by a high level of endogenous

certainty. Most people love themselves and, thus, feel that they are distinct and unique.

So, the main determinant in feeling unique is the level of endogenous certainty regarding one's uniqueness possessed by an individual.

Communicating this uniqueness becomes a limited, secondary aspect, provided for by specific role-players in the life of the individual.

Narcissists, by comparison, maintain a low level of endogenous certainty. They hate or even detest themselves, regard themselves as failures. They feel that they are worthy of nothing and lack uniqueness.

This low level of endogenous certainty has to be compensated for by a high level of exogenous certainty.

This is achieved by communicating uniqueness to people able and willing to observe, verify and communicate it to others. As we said before, this is done by pursuing publicity, or through political activities and artistic creativity, to mention a few venues. To maintain the continuity of the sensation of uniqueness - a continuity of these activities has to be preserved.

Sometimes, the narcissist secures this certainty from "self-communicating" objects.

An example: an object which is also a status symbol is really a concentrated "packet of information" concerning the uniqueness of its owner. Compulsive accumulation of assets and compulsive shopping can be added to the above list of venues. Art collections, luxury cars and stately mansions communicate uniqueness and at the same time constitute part of it.

There seems to be some kind of "Uniqueness Ratio" between Exogenous Uniqueness and Endogenous Uniqueness. Another pertinent distinction is between the Basic Component of Uniqueness (BCU) and the Complex Component of Uniqueness (CCU).

The BCU comprises the sum of all the characteristics, qualities and personal history, which define a specific individual and distinguish him from the rest of Mankind. This, ipso facto, is the very kernel of his uniqueness.

The CCU is a product of rarity and obtain ability. The more common and the more obtainable a man's history, characteristics, and possessions are - the more limited his CCU. Rarity is the statistical distribution of properties and determinants in the general population and obtain ability - the energy required to secure them.

As opposed to the CCU - the BCU is axiomatic and requires no proof. We are all unique.

The CCU requires measurements and comparisons and is dependent, therefore, on human activities and on human agreements and judgements. The greater the number of people in agreement - the greater the certainty that a CCU exists and to what extent it does.

In other words, both the very existence of a CCU and its magnitude depend on the judgement of humans and are better substantiated (=more certain) the more numerous the people who exert judgement.

Human societies have delegated the measurement of the CCU to certain agents.

Universities measure a uniqueness component called education. It certifies the existence and the extent of this

component in their students. Banks and credit agencies measure elements of uniqueness called affluence and creditworthiness. Publishing houses measure another one, called "creativity" and "marketability".

Thus, the absolute size of the group of people involved in judging the existence and the measure of the CCU, is less important. It is sufficient to have a few social agents which REPRESENT a large number of people (=society).

There is, therefore, no necessary connection between the mass communicability of the uniqueness component - and its complexity, extent, or even its existence.

A person might have a high CCU - but be known only to a very limited circle of social agents. He will not be famous or renowned, but he will still be very unique.

Such uniqueness is potentially communicable - but its validity is not be effected by the fact that it is communicated only through a small circle of social agents.

The lust for publicity has, therefore, nothing to do with the wish to establish the existence or the measure of self-uniqueness.

Both the basic and the complex uniqueness components are not dependent upon their replication or communication. The more complex form of uniqueness is dependent only upon the judgement and recognition of social agents, which represent large numbers of people. Thus, the lust for mass publicity and for celebrity is connected to how successfully the feeling of uniqueness is internalized by the individual and not to "objective" parameters related to the substantiation of his uniqueness or to its scope.

We can postulate the existence of a Uniqueness Constant that is composed of the sum of the endogenous and the exogenous components of uniqueness (and is highly subjective). Concurrently a Uniqueness Variable can be introduced which is the sum total of the BCU and the CCU (and is more objectively determinable).

The Uniqueness Ratio oscillates in accordance with the changing emphases within the Uniqueness Constant. At times, the exogenous source of uniqueness prevails and the Uniqueness Ratio is at its peak, with the CCU maximized. At other times, the endogenous source of uniqueness gains the upper hand and the Uniqueness Ratio is in a trough, with the BCU maximized. Healthy people maintain a constant amount of "feeling unique" with shifting emphases between BCU and CCU. The Uniqueness Constant of healthy people is always identical to their Uniqueness Variable. With narcissists, the story is different. It would seem that the size of their Uniqueness Variable is a derivative of the amount of exogenous input. The BCU is constant and rigid.

Only the CCU varies the value of the Uniqueness Variable and it, in turn, is virtually determined by the exogenous uniqueness element.

A minor consolation for the narcissist is that the social agents, who determine the value of one's CCU do not have to be contemporaneous or co-spatial with him.

Narcissists like to quote examples of geniuses whose time has come only posthumously: Kafka, Nietzsche, Van Gogh. They had a high CCU, which was not recognized by their contemporary social agents (media, art critics, or colleagues).

But they were recognized in later generations, in other cultures, and in other places by the dominant social agents.

So, although true that the wider an individual's influence the greater his uniqueness, influence should be measured "inhumanly", over enormous stretches of space and time. After all, influence can be exerted on biological or spiritual descendants, it can be overt, genetic, or covert.

There are individual influences on such a wide scale that they can be judged only historically.

Virtual Reality (Film Review of "The Matrix")

It is easy to confuse the concepts of "virtual reality" and a "computerized model of reality (simulation)". The former is a self-contained Universe, replete with its "laws of physics" and "logic". It can bear resemblance to the real world or not. It can be consistent or not. It can interact with the real world or not. In short, it is an arbitrary environment. In contrast, a model of reality must have a direct and strong relationship to the world. It must obey the rules of physics and of logic. The absence of such a relationship renders it meaningless. A flight simulator is not much good in a world without airplanes or if it ignores the laws of nature. A technical analysis program is useless without a stock exchange or if its mathematically erroneous.

Yet, the two concepts are often confused because they are both mediated by and reside on computers. The computer is a self-contained (though not closed) Universe. It incorporates the hardware, the data and the instructions for the manipulation of the data (software). It is, therefore, by definition, a virtual reality. It is versatile and can

correlate its reality with the world outside. But it can also refrain from doing so. This is the ominous "what if" in artificial intelligence (AI). What if a computer were to refuse to correlate its internal (virtual) reality with the reality of its makers? What if it were to impose its own reality on us and make it the privileged one?

In the visually tantalizing movie, "The Matrix", a breed of AI computers takes over the world. It harvests human embryos in laboratories called "fields". It then feeds them through grim looking tubes and keeps them immersed in gelatinous liquid in cocoons. This new "machine species" derives its energy needs from the electricity produced by the billions of human bodies thus preserved. A sophisticated, all-pervasive, computer program called "The Matrix" generates a "world" inhabited by the consciousness of the unfortunate human batteries. Ensconced in their shells, they see themselves walking, talking, working and making love. This is a tangible and olfactory phantasm masterfully created by the Matrix. Its computing power is mind boggling. It generates the minutest details and reams of data in a spectacularly successful effort to maintain the illusion.

A group of human miscreants succeeds to learn the secret of the Matrix. They form an underground and live aboard a ship, loosely communicating with a halcyon city called "Zion", the last bastion of resistance. In one of the scenes, Cypher, one of the rebels defects. Over a glass of (illusory) rubicund wine and (spectral) juicy steak, he poses the main dilemma of the movie. Is it better to live happily in a perfectly detailed delusion - or to survive unhappily but free of its hold?

The Matrix controls the minds of all the humans in the world. It is a bridge between them, they inter-connected

through it. It makes them share the same sights, smells and textures. They remember. They compete. They make decisions. The Matrix is sufficiently complex to allow for this apparent lack of determinism and ubiquity of free will. The root question is: is there any difference between making decisions and feeling certain of making them (not having made them)? If one is unaware of the existence of the Matrix, the answer is no. From the inside, as a part of the Matrix, making decisions and appearing to be making them are identical states. Only an outside observer - one who in possession of full information regarding both the Matrix and the humans - can tell the difference.

Moreover, if the Matrix were a computer program of infinite complexity, no observer (finite or infinite) would have been able to say with any certainty whose a decision was - the Matrix's or the human's. And because the Matrix, for all intents and purposes, is infinite compared to the mind of any single, tube-nourished, individual - it is safe to say that the states of "making a decision" and "appearing to be making a decision" are subjectively indistinguishable. No individual within the Matrix would be able to tell the difference. His or her life would seem to him or her as real as ours are to us. The Matrix may be deterministic - but this determinism is inaccessible to individual minds because of the complexity involved. When faced with a trillion deterministic paths, one would be justified to feel that he exercised free, unconstrained will in choosing one of them. Free will and determinism are indistinguishable at a certain level of complexity.

Yet, we KNOW that the Matrix is different to our world. It is NOT the same. This is an intuitive kind of knowledge, for sure, but this does not detract from its firmness. If there is no subjective difference between the Matrix and

our Universe, there must be an objective one. Another key sentence is uttered by Morpheus, the leader of the rebels. He says to "The Chosen One" (the Messiah) that it is really the year 2199, though the Matrix gives the impression that it is 1999.

This is where the Matrix and reality diverge. Though a human who would experience both would find them indistinguishable - objectively they are different. In one of them (the Matrix), people have no objective TIME (though the Matrix might have it). The other (reality) is governed by it.

Under the spell of the Matrix, people feel as though time goes by. They have functioning watches. The sun rises and sets. Seasons change. They grow old and die. This is not entirely an illusion. Their bodies do decay and die, as ours do. They are not exempt from the laws of nature. But their AWARENESS of time is computer generated. The Matrix is sufficiently sophisticated and knowledgeable to maintain a close correlation between the physical state of the human (his health and age) and his consciousness of the passage of time. The basic rules of time - for instance, its asymmetry - are part of the program.

But this is precisely it. Time in the minds of these people is program-generated, not reality-induced. It is not the derivative of change and irreversible (thermodynamic and other) processes OUT THERE. Their minds are part of a computer program and the computer program is a part of their minds. Their bodies are static, degenerating in their protective nests. Nothing happens to them except in their minds. They have no physical effect on the world. They effect no change. These things set the Matrix and reality apart.

To "qualify" as reality a two-way interaction must occur. One flow of data is when reality influences the minds of people (as does the Matrix). The obverse, but equally necessary, type of data flow is when people know reality and influence it. The Matrix triggers a time sensation in people the same way that the Universe triggers a time sensation in us. Something does happen OUT THERE and it is called the Matrix. In this sense, the Matrix is real, it is the reality of these humans. It maintains the requirement of the first type of flow of data. But it fails the second test: people do not know that it exists or any of its attributes, nor do they affect it irreversibly. They do not change the Matrix. Paradoxically, the rebels do affect the Matrix (they almost destroy it). In doing so, they make it REAL. It is their REALITY because they KNOW it and they irreversibly CHANGE it.

Applying this dual-track test, "virtual" reality IS a reality, albeit, at this stage, of a deterministic type. It affects our minds, we know that it exists and we affect it in return. Our choices and actions irreversibly alter the state of the system. This altered state, in turn, affects our minds. This interaction IS what we call "reality". With the advent of stochastic and quantum virtual reality generators - the distinction between "real" and "virtual" will fade. The Matrix thus is not impossible. But that it is possible - does not make it real.

Appendix - God and Gödel

The second movie in the Matrix series - "The Matrix Reloaded" - culminates in an encounter between Neo ("The One") and the architect of the Matrix (a thinly disguised God, white beard and all). The architect informs Neo that he is the sixth reincarnation of The One and that Zion, a shelter for those decoupled from the Matrix, has

been destroyed before and is about to be demolished again.

The architect goes on to reveal that his attempts to render the Matrix "harmonious" (perfect) failed. He was, thus, forced to introduce an element of intuition into the equations to reflect the unpredictability and "grotesqueries" of human nature. This in-built error tends to accumulate over time and to threaten the very existence of the Matrix - hence the need to obliterate Zion, the seat of malcontents and rebels, periodically.

God appears to be unaware of the work of an important, though eccentric, Czech-Austrian mathematical logician, Kurt Gödel (1906-1978). A passing acquaintance with his two theorems would have saved the architect a lot of time.

Gödel's First Incompleteness Theorem states that every consistent axiomatic logical system, sufficient to express arithmetic, contains true but unprovable ("not decidable") sentences. In certain cases (when the system is omega-consistent), both said sentences and their negation are unprovable. The system is consistent and true - but not "complete" because not all its sentences can be decided as true or false by either being proved or by being refuted.

The Second Incompleteness Theorem is even more earth-shattering. It says that no consistent formal logical system can prove its own consistency. The system may be complete - but then we are unable to show, using its axioms and inference laws, that it is consistent

In other words, a computational system, like the Matrix, can either be complete and inconsistent - or consistent and incomplete. By trying to construct a system both complete and consistent, God has run afoul of Gödel's theorem and

made possible the third sequel, "Matrix Revolutions".

Virtual Reality (Film Review of "The Truman Show")

"The Truman Show" is a profoundly disturbing movie. On the surface, it deals with the worn out issue of the intermingling of life and the media.

Examples for such incestuous relationships abound:

Ronald Reagan, the cinematic president was also a presidential movie star. In another movie ("The Philadelphia Experiment") a defrosted Rip Van Winkle exclaims upon seeing Reagan on television (40 years after his forced hibernation started): "I know this guy, he used to play Cowboys in the movies".

Candid cameras monitor the lives of webmasters (website owners) almost 24 hours a day. The resulting images are continuously posted on the Web and are available to anyone with a computer.

The last decade witnessed a spate of films, all concerned with the confusion between life and the imitations of life, the media. The ingenious "Capitan Fracasse", "Capricorn One", "Sliver", "Wag the Dog" and many lesser films have all tried to tackle this (un)fortunate state of things and its moral and practical implications.

The blurring line between life and its representation in the arts is arguably the main theme of "The Truman Show". The hero, Truman, lives in an artificial world, constructed especially for him. He was born and raised there. He knows no other place. The people around him – unbeknownst to him – are all actors. His life is monitored

by 5000 cameras and broadcast live to the world, 24 hours a day, every day. He is spontaneous and funny because he is unaware of the monstrosity of which he is the main cogwheel.

But Peter Weir, the movie's director, takes this issue one step further by perpetrating a massive act of immorality on screen. Truman is lied to, cheated, deprived of his ability to make choices, controlled and manipulated by sinister, half-mad Shylocks. As I said, he is unwittingly the only spontaneous, non-scripted, "actor" in the on-going soaper of his own life. All the other figures in his life, including his parents, are actors. Hundreds of millions of viewers and voyeurs plug in to take a peep, to intrude upon what Truman innocently and honestly believes to be his privacy. They are shown responding to various dramatic or anti-climactic events in Truman's life. That we are the moral equivalent of these viewers-voyeurs, accomplices to the same crimes, comes as a shocking realization to us. We are (live) viewers and they are (celluloid) viewers. We both enjoy Truman's inadvertent, non-consenting, exhibitionism. We know the truth about Truman and so do they. Of course, we are in a privileged moral position because we know it is a movie and they know it is a piece of raw life that they are watching. But moviegoers throughout Hollywood's history have willingly and insatiably participated in numerous "Truman Shows". The lives (real or concocted) of the studio stars were brutally exploited and incorporated in their films. Jean Harlow, Barbara Stanwyck, James Cagney all were forced to spill their guts in cathartic acts of on camera repentance and not so symbolic humiliation. "Truman Shows" is the more common phenomenon in the movie industry.

Then there is the question of the director of the movie as God and of God as the director of a movie. The members of his team – technical and non-technical alike – obey Christoff, the director, almost blindly. They suspend their better moral judgement and succumb to his whims and to the brutal and vulgar aspects of his pervasive dishonesty and sadism. The torturer loves his victims. They define him and infuse his life with meaning. Caught in a narrative, the movie says, people act immorally.

(IN)famous psychological experiments support this assertion. Students were led to administer what they thought were "deadly" electric shocks to their colleagues or to treat them bestially in simulated prisons. They obeyed orders. So did all the hideous genocidal criminals in history. The Director Weir asks: should God be allowed to be immoral or should he be bound by morality and ethics? Should his decisions and actions be constrained by an over-riding code of right and wrong? Should we obey his commandments blindly or should we exercise judgement? If we do exercise judgement are we then being immoral because God (and the Director Christoff) know more (about the world, about us, the viewers and about Truman), know better, are omnipotent? Is the exercise of judgement the usurpation of divine powers and attributes? Isn't this act of rebelliousness bound to lead us down the path of apocalypse?

It all boils down to the question of free choice and free will versus the benevolent determinism imposed by an omniscient and omnipotent being. What is better: to have the choice and be damned (almost inevitably, as in the biblical narrative of the Garden of Eden) – or to succumb to the superior wisdom of a supreme being? A choice always involves a dilemma. It is the conflict between two

equivalent states, two weighty decisions whose outcomes are equally desirable and two identically-preferable courses of action. Where there is no such equivalence – there is no choice, merely the pre-ordained (given full knowledge) exercise of a preference or inclination. Bees do not choose to make honey. A fan of football does not choose to watch a football game. He is motivated by a clear inequity between the choices that he faces. He can read a book or go to the game. His decision is clear and pre-determined by his predilection and by the inevitable and invariable implementation of the principle of pleasure. There is no choice here. It is all rather automatic. But compare this to the choice some victims had to make between two of their children in the face of Nazi brutality. Which child to sentence to death – which one to sentence to life? Now, this is a real choice. It involves conflicting emotions of equal strength. One must not confuse decisions, opportunities and choice. Decisions are the mere selection of courses of action. This selection can be the result of a choice or the result of a tendency (conscious, unconscious, or biological-genetic). Opportunities are current states of the world, which allow for a decision to be made and to affect the future state of the world. Choices are our conscious experience of moral or other dilemmas.

Christoff finds it strange that Truman – having discovered the truth – insists upon his right to make choices, i.e., upon his right to experience dilemmas. To the Director, dilemmas are painful, unnecessary, destructive, or at best disruptive. His utopian world – the one he constructed for Truman – is choice-free and dilemma-free. Truman is programmed not in the sense that his spontaneity is extinguished. Truman is wrong when, in one of the scenes, he keeps shouting: "Be careful, I am

spontaneous". The Director and fat-cat capitalistic producers want him to be spontaneous, they want him to make decisions. But they do not want him to make choices. So they influence his preferences and predilections by providing him with an absolutely totalitarian, micro-controlled, repetitive environment. Such an environment reduces the set of possible decisions so that there is only one favourable or acceptable decision (outcome) at any junction. Truman does decide whether to walk down a certain path or not. But when he does decide to walk – only one path is available to him. His world is constrained and limited – not his actions.

Actually, Truman's only choice in the movie leads to an arguably immoral decision. He abandons ship. He walks out on the whole project. He destroys an investment of billions of dollars, people's lives and careers. He turns his back on some of the actors who seem to really be emotionally attached to him. He ignores the good and pleasure that the show has brought to the lives of millions of people (the viewers). He selfishly and vengefully goes away. He knows all this. By the time he makes his decision, he is fully informed. He knows that some people may commit suicide, go bankrupt, endure major depressive episodes, do drugs. But this massive landscape of resulting devastation does not deter him. He prefers his narrow, personal, interest. He walks.

But Truman did not ask or choose to be put in his position. He found himself responsible for all these people without being consulted. There was no consent or act of choice involved. How can anyone be responsible for the well-being and lives of other people – if he did not CHOOSE to be so responsible? Moreover, Truman had the perfect moral right to think that these people wronged him. Are

we morally responsible and accountable for the well-being and lives of those who wrong us? True Christians are, for instance.

Moreover, most of us, most of the time, find ourselves in situations which we did not help mould by our decisions. We are unwillingly cast into the world. We do not provide prior consent to being born. This fundamental decision is made for us, forced upon us. This pattern persists throughout our childhood and adolescence: decisions are made elsewhere by others and influence our lives profoundly. As adults we are the objects – often the victims – of the decisions of corrupt politicians, mad scientists, megalomaniac media barons, gung-ho generals and demented artists. This world is not of our making and our ability to shape and influence it is very limited and rather illusory. We live in our own "Truman Show". Does this mean that we are not morally responsible for others?

We are morally responsible even if we did not choose the circumstances and the parameters and characteristics of the universe that we inhabit. The Swedish Count Wallenberg imperilled his life (and lost it) smuggling hunted Jews out of Nazi occupied Europe. He did not choose, or helped to shape Nazi Europe. It was the brainchild of the deranged Director Hitler. Having found himself an unwilling participant in Hitler's horror show, Wallenberg did not turn his back and opted out. He remained within the bloody and horrific set and did his best. Truman should have done the same. Jesus said that he should have loved his enemies. He should have felt and acted with responsibility towards his fellow human beings, even towards those who wronged him greatly.

But this may be an inhuman demand. Such forgiveness and magnanimity are the reserve of God. And the fact that

Truman's tormentors did not see themselves as such and believed that they were acting in his best interests and that they were catering to his every need – does not absolve them from their crimes. Truman should have maintained a fine balance between his responsibility to the show, its creators and its viewers and his natural drive to get back at his tormentors. The source of the dilemma (which led to his act of choosing) is that the two groups overlap. Truman found himself in the impossible position of being the sole guarantor of the well-being and lives of his tormentors. To put the question in sharper relief: are we morally obliged to save the life and livelihood of someone who greatly wronged us? Or is vengeance justified in such a case?

A very problematic figure in this respect is that of Truman's best and childhood friend. They grew up together, shared secrets, emotions and adventures. Yet he lies to Truman constantly and under the Director's instructions. Everything he says is part of a script. It is this disinformation that convinces us that he is not Truman's true friend. A real friend is expected, above all, to provide us with full and true information and, thereby, to enhance our ability to choose. Truman's true love in the Show tried to do it. She paid the price: she was ousted from the show. But she tried to provide Truman with a choice. It is not sufficient to say the right things and make the right moves. Inner drive and motivation are required and the willingness to take risks (such as the risk of providing Truman with full information about his condition). All the actors who played Truman's parents, loving wife, friends and colleagues, miserably failed on this score.

It is in this mimicry that the philosophical key to the whole movie rests. A Utopia cannot be faked. Captain

Nemo's utopian underwater city was a real Utopia because everyone knew everything about it. People were given a choice (though an irreversible and irrevocable one). They chose to become lifetime members of the reclusive Captain's colony and to abide by its (overly rational) rules. The Utopia came closest to extinction when a group of stray survivors of a maritime accident were imprisoned in it against their expressed will. In the absence of choice, no utopia can exist. In the absence of full, timely and accurate information, no choice can exist. Actually, the availability of choice is so crucial that even when it is prevented by nature itself – and not by the designs of more or less sinister or monomaniac people – there can be no Utopia. In H.G. Wells' book "The Time Machine", the hero wanders off to the third millennium only to come across a peaceful Utopia. Its members are immortal, don't have to work, or think in order to survive. Sophisticated machines take care of all their needs. No one forbids them to make choices. There simply is no need to make them. So the Utopia is fake and indeed ends badly.

Finally, the "Truman Show" encapsulates the most virulent attack on capitalism in a long time. Greedy, thoughtless money machines in the form of billionaire tycoon-producers exploit Truman's life shamelessly and remorselessly in the ugliest display of human vices possible. The Director indulges in his control-mania. The producers indulge in their monetary obsession. The viewers (on both sides of the silver screen) indulge in voyeurism. The actors vie and compete in the compulsive activity of furthering their petty careers. It is a repulsive canvas of a disintegrating world. Perhaps Christoff is right after al when he warns Truman about the true nature of the world. But Truman chooses. He chooses the exit door leading to the outer darkness over the false sunlight in the

Utopia that he leaves behind.

Volatility

Volatility is considered the most accurate measure of risk and, by extension, of return, its flip side. The higher the volatility, the higher the risk - and the reward. That volatility increases in the transition from bull to bear markets seems to support this pet theory. But how to account for surging volatility in plummeting bourses? At the depths of the bear phase, volatility and risk increase while returns evaporate - even taking short-selling into account.

"The Economist" has recently proposed yet another dimension of risk:

"The Chicago Board Options Exchange's VIX index, a measure of traders' expectations of share price gyrations, in July reached levels not seen since the 1987 crash, and shot up again (two weeks ago)... Over the past five years, volatility spikes have become ever more frequent, from the Asian crisis in 1997 right up to the World Trade Centre attacks. Moreover, it is not just price gyrations that have increased, but the volatility of volatility itself. The markets, it seems, now have an added dimension of risk."

Call-writing has soared as punters, fund managers, and institutional investors try to eke an extra return out of the wild ride and to protect their dwindling equity portfolios. Naked strategies - selling options contracts or buying them in the absence of an investment portfolio of underlying assets - translate into the trading of volatility itself and, hence, of risk. Short-selling and spread-betting funds join single stock futures in profiting from the downside.

Market - also known as beta or systematic - risk and volatility reflect underlying problems with the economy as a whole and with corporate governance: lack of transparency, bad loans, default rates, uncertainty, illiquidity, external shocks, and other negative externalities. The behavior of a specific security reveals additional, idiosyncratic, risks, known as alpha.

Quantifying volatility has yielded an equal number of Nobel prizes and controversies. The vacillation of security prices is often measured by a coefficient of variation within the Black-Scholes formula published in 1973. Volatility is implicitly defined as the standard deviation of the yield of an asset. The value of an option increases with volatility. The higher the volatility the greater the option's chance during its life to be "in the money" - convertible to the underlying asset at a handsome profit.

Without delving too deeply into the model, this mathematical expression works well during trends and fails miserably when the markets change sign. There is disagreement among scholars and traders whether one should better use historical data or current market prices - which include expectations - to estimate volatility and to price options correctly.

From "The Econometrics of Financial Markets" by John Campbell, Andrew Lo, and Craig MacKinlay, Princeton University Press, 1997:

"Consider the argument that implied volatilities are better forecasts of future volatility because changing market conditions cause volatilities (to) vary through time stochastically, and historical volatilities cannot adjust to changing market conditions as rapidly. The folly of this argument lies in the fact that stochastic volatility

contradicts the assumption required by the B-S model - if volatilities do change stochastically through time, the Black-Scholes formula is no longer the correct pricing formula and an implied volatility derived from the Black-Scholes formula provides no new information."

Black-Scholes is thought deficient on other issues as well. The implied volatilities of different options on the same stock tend to vary, defying the formula's postulate that a single stock can be associated with only one value of implied volatility. The model assumes a certain - geometric Brownian - distribution of stock prices that has been shown to not apply to US markets, among others.

Studies have exposed serious departures from the price process fundamental to Black-Scholes: skewness, excess kurtosis (i.e., concentration of prices around the mean), serial correlation, and time varying volatilities. Black-Scholes tackles stochastic volatility poorly. The formula also unrealistically assumes that the market dickers continuously, ignoring transaction costs and institutional constraints. No wonder that traders use Black-Scholes as a heuristic rather than a price-setting formula.

Volatility also decreases in administered markets and over different spans of time. As opposed to the received wisdom of the random walk model, most investment vehicles sport different volatilities over different time horizons. Volatility is especially high when both supply and demand are inelastic and liable to large, random shocks. This is why the prices of industrial goods are less volatile than the prices of shares, or commodities.

But why are stocks and exchange rates volatile to start with? Why don't they follow a smooth evolutionary path in line, say, with inflation, or interest rates, or

productivity, or net earnings?

To start with, because economic fundamentals fluctuate - sometimes as wildly as shares. The Fed has cut interest rates 11 times in the past 12 months down to 1.75 percent - the lowest level in 40 years. Inflation gyrated from double digits to a single digit in the space of two decades. This uncertainty is, inevitably, incorporated in the price signal.

Moreover, because of time lags in the dissemination of data and its assimilation in the prevailing operational model of the economy - prices tend to overshoot both ways. The economist Rudiger Dornbusch, who died last month, studied in his seminal paper, "Expectations and Exchange Rate Dynamics", published in 1975, the apparently irrational ebb and flow of floating currencies.

His conclusion was that markets overshoot in response to surprising changes in economic variables. A sudden increase in the money supply, for instance, axes interest rates and causes the currency to depreciate. The rational outcome should have been a panic sale of obligations denominated in the collapsing currency. But the devaluation is so excessive that people reasonably expect a rebound - i.e., an appreciation of the currency - and purchase bonds rather than dispose of them.

Yet, even Dornbusch ignored the fact that some price twirls have nothing to do with economic policies or realities, or with the emergence of new information - and a lot to do with mass psychology. How else can we account for the crash of October 1987? This goes to the heart of the undecided debate between technical and fundamental analysts.

As Robert Shiller has demonstrated in his tomes "Market Volatility" and "Irrational Exuberance", the volatility of stock prices exceeds the predictions yielded by any efficient market hypothesis, or by discounted streams of future dividends, or earnings. Yet, this finding is hotly disputed.

Some scholarly studies of researchers such as Stephen LeRoy and Richard Porter offer support - other, no less weighty, scholarship by the likes of Eugene Fama, Kenneth French, James Poterba, Allan Kleidon, and William Schwert negate it - mainly by attacking Shiller's underlying assumptions and simplifications. Everyone - opponents and proponents alike - admit that stock returns do change with time, though for different reasons.

Volatility is a form of market inefficiency. It is a reaction to incomplete information (i.e., uncertainty). Excessive volatility is irrational. The confluence of mass greed, mass fears, and mass disagreement as to the preferred mode of reaction to public and private information - yields price fluctuations.

Changes in volatility - as manifested in options and futures premiums - are good predictors of shifts in sentiment and the inception of new trends. Some traders are contrarians. When the VIX or the NASDAQ Volatility indices are high - signifying an oversold market - they buy and when the indices are low, they sell.

Chaikin's Volatility Indicator, a popular timing tool, seems to couple market tops with increased indecisiveness and nervousness, i.e., with enhanced volatility. Market bottoms - boring, cyclical, affairs - usually suppress volatility. Interestingly, Chaikin himself disputes this interpretation. He believes that volatility increases near

the bottom, reflecting panic selling - and decreases near the top, when investors are in full accord as to market direction.

But most market players follow the trend. They sell when the VIX is high and, thus, portends a declining market. A bullish consensus is indicated by low volatility. Thus, low VIX readings signal the time to buy. Whether this is more than superstition or a mere gut reaction remains to be seen.

It is the work of theoreticians of finance. Alas, they are consumed by mutual rubbishing and dogmatic thinking. The few that wander out of the ivory tower and actually bother to ask economic players what they think and do - and why - are much derided. It is a dismal scene, devoid of volatile creativity.

West (as Construct)

In his book - really an extended essay - ***"Of Paradise and Power: America and Europe in the New World Order" -*** Robert Kagan claims that the political construct of the "West" was conjured up by the United States and Western Europe during the Cold War as a response to the threat posed by the nuclear-armed, hostile and expansionist U.S.S.R.

The implosion of the Soviet Bloc rendered the "West" an obsolete, meaningless, and cumbersome concept, on the path to perdition. Cracks in the common front of the Western allies - the Euro-Atlantic structures - widened into a full-fledged and unbridgeable rift in the run-up to the war in Iraq (see the next chapter, "The Demise of the West").

According to this U.S.-centric view, Europe missed an opportunity to preserve the West as the organizing principle of post Cold War geopolitics by refusing to decisively side with the United States against the enemies of Western civilization, such as Iraq's Saddam Hussein.

Such reluctance is considered by Americans to be both naive and hazardous, proof of the lack of vitality and decadence of "Old Europe". The foes of the West, steeped in conspiracy theories and embittered by centuries of savage colonialism, will not find credible the alleged disintegration of the Western alliance, say the Americans. They will continue to strike, even as the constituents of the erstwhile West drift apart and weaken.

Yet, this analysis misses the distinction between the West as a civilization and the West as a fairly recent geopolitical construct.

Western civilization is millennia old - though it had become self-aware and exclusionary only during the Middle Ages or, at the latest, the Reformation. Max Weber (1864-1920) attributed its success to its ethical and, especially, religious foundations. At the other extreme, biological determinists, such as Giambattista Vico (1668-1744) and Oswald Spengler (1880-1936), predicted its inevitable demise. Spengler authored the controversial "Decline of the West" in 1918-22.

Arnold Toynbee (1889-1975) disagreed with Spengler in "A Study of History" (1934-61). He believed in the possibility of cultural and institutional regeneration. But, regardless of persuasion, no historian or philosopher in the first half of the twentieth century grasped the "West" in political or military terms. The polities involved were often bitter enemies and with disparate civil systems.

In the second half of the past century, some historiographies - notably "The Rise of the West" by W. H. McNeill (1963), "Unfinished History of the World" (1971) by Hugh Thomas, "History of the World" by J. M. Roberts (1976), and, more recently, "Millennium" by Felip Fernandez-Armesto (1995) and "From Dawn to Decadence: 500 Years of Western Cultural Life" by Jacques Barzun (2000) - ignored the heterogeneous nature of the West in favor of an "evolutionary", Euro-centric idea of progress and, in the case of Fernandez-Armesto and Barzun, decline.

Yet, these linear, developmental views of a single "Western" entity - whether a civilization or a political-military alliance - are very misleading. The West as the fuzzy name given to a set of interlocking alliances is a creature of the Cold War (1946-1989). It is both missionary and pluralistic - and, thus, dynamic and ever-changing. Some members of the political West share certain common values - liberal democracy, separation of church and state, respect for human rights and private property, for instance. Others - think Turkey or Israel - do not.

The "West", in other words, is a fluid, fuzzy and non-monolithic concept. As William Anthony Hay notes in "Is There Still a West?" (published in the September 2002 issue of "Watch on the West", Volume 3, Number 8, by the Foreign Policy Research Institute): "If Western civilization, along with particular national or regional identities, is merely an imagined community or an intellectual construct that serves the interest of dominant groups, then it can be reconstructed to serve the needs of current agendas."

Though the idea of the West, as a convenient operational

abstraction, preceded the Cold War - it is not the natural extension or the inescapable denouement of Western civilization. Rather, it is merely the last phase and manifestation of the clash of titans between Germany on the one hand and Russia on the other hand.

Europe spent the first half of the 19th century (following the 1815 Congress of Vienna) containing France. The trauma of the Napoleonic wars was the last in a medley of conflicts with an increasingly menacing France stretching back to the times of Louis XIV. The Concert of Europe was specifically designed to reflect the interests of the Big Powers, establish their borders of expansion in Europe, and create a continental "balance of deterrence". For a few decades it proved to be a success.

The rise of a unified, industrially mighty and narcissistic Germany erased most of these achievements. By closely monitoring France rather than a Germany on the ascendant, the Big Powers were still fighting the Napoleonic wars - while ignoring, at their peril, the nature and likely origin of future conflagrations. They failed to notice that Germany was bent on transforming itself into the economic and political leader of a united Europe, by force of arms, if need be.

The German "September 1914 Plan", for instance, envisaged an economic union imposed on the vanquished nations of Europe following a military victory. It was self-described as a "(plan for establishing) an economic organization ... through mutual customs agreements ... including France, Belgium, Holland, Denmark, Austria, Poland, and perhaps Italy, Sweden, and Norway". It is eerily reminiscent of the European Union.

The 1918 Brest-Litovsk armistice treaty between Germany and Russia recognized the East-West divide. The implosion of the four empires - the Ottoman, Habsburg, Hohenzollern and Romanov - following the first world war, only brought to the fore the gargantuan tensions between central Europe and its east.

But it was Adolf Hitler (1889-1945) who fathered the West as we know it today.

Hitler sought to expand the German Lebensraum and to found a giant "slave state" in the territories of the east, Russia, Poland, and Ukraine included. He never regarded the polities of west Europe or the United States as enemies. On the contrary, he believed that Germany and these countries are natural allies faced with a mortal, cunning and ruthless foe: the U.S.S.R. In this, as in many other things, he proved prescient.

Ironically, Hitler's unmitigated thuggery and vile atrocities did finally succeed to midwife the West - but as an anti-German coalition. The reluctant allies first confronted Germany and Stalinist Russia with which Berlin had a non-aggression pact. When Hitler then proceeded to attack the U.S.S.R. in 1941, the West hastened to its defense.

But - once the war was victoriously over - this unnatural liaison between West and East disintegrated. A humbled and divided West Germany reverted to its roots. It became a pivotal pillar of the West - a member of the European Economic Community (later renamed the European Union) and of NATO. Hitler's fervent wish and vision - a Europe united around Germany against the Red Menace - was achieved posthumously.

That it was Hitler who invented the West is no cruel

historical joke.

Hitler and Nazism are often portrayed as an apocalyptic and seismic break with European history. Yet the truth is that they were the culmination and reification of European history in the 19th century. Europe's annals of colonialism have prepared it for the range of phenomena associated with the Nazi regime - from industrial murder to racial theories, from slave labour to the forcible annexation of territory.

Germany was a colonial power no different to murderous Belgium or Britain. What set it apart is that it directed its colonial attentions at the heartland of Europe - rather than at Africa or Asia. Both World Wars were colonial wars fought on European soil.

Moreover, Nazi Germany innovated by applying to the white race itself prevailing racial theories, usually reserved to non-whites. It first targeted the Jews - a non-controversial proposition - but then expanded its racial "science" to encompass "east European" whites, such as the Poles and the Russians.

Germany was not alone in its malignant nationalism. The far right in France was as pernicious. Nazism - and Fascism - were world ideologies, adopted enthusiastically in places as diverse as Iraq, Egypt, Norway, Latin America, and Britain. At the end of the 1930's, liberal capitalism, communism, and fascism (and its mutations) were locked in a mortal battle of ideologies.

Hitler's mistake was to delusionally believe in the affinity between capitalism and Nazism - an affinity enhanced, to his mind, by Germany's corporatism and by the existence

of a common enemy: global communism.

Nazism was a religion, replete with godheads and rituals. It meshed seamlessly with the racist origins of the West, as expounded by the likes of Rudyard Kipling (1865-1936). The proselytizing and patronizing nature of the West is deep rooted. Colonialism - a distinctly Western phenomenon - always had discernible religious overtones and often collaborated with missionary religion. "The White Man's burden" of civilizing the "savages" was widely perceived as ordained by God. The church was the extension of the colonial power's army and trading companies.

Thus, following two ineffably ruinous world wars, Europe finally shifted its geopolitical sights from France to Germany. In an effort to prevent a repeat of Hitler, the Big Powers of the West, led by France, established an "ever closer" European Union. Germany was (inadvertently) split, sandwiched between East and West and, thus, restrained.

East Germany faced a military-economic union (the Warsaw Pact) cum eastern empire (the late U.S.S.R.). West Germany was surrounded by a military union (NATO) cum emerging Western economic supranational structure (the EU). The Cold War was fought all over the world - but in Europe it revolved around Germany.

The collapse of the eastern flank (the Soviet - "evil" - Empire) of this implicit anti-German containment geo-strategy led to the re-emergence of a united Germany. Furthermore, Germany is in the process of securing its hegemony over the EU by applying the political weight commensurate with its economic and demographic might.

Germany is a natural and historical leader of central Europe - the EU's and NATO's future Lebensraum and the target of their expansionary predilections ("integration"). Thus, virtually overnight, Germany came to dominate the Western component of the anti-German containment master plan, while the Eastern component - the Soviet Bloc - has chaotically disintegrated.

The EU is reacting by trying to assume the role formerly played by the U.S.S.R. EU integration is an attempt to assimilate former Soviet satellites and dilute Germany's power by re-jigging rules of voting and representation. If successful, this strategy will prevent Germany from bidding yet again for a position of hegemony in Europe by establishing a "German Union" separate from the EU. It is all still the same tiresome and antiquated game of continental Big Powers. Even Britain maintains its Victorian position of "splendid isolation".

The exclusion of both Turkey and Russia from these re-alignments is also a direct descendant of the politics of the last two centuries. Both will probably gradually drift away from European (and Western) structures and seek their fortunes in the geopolitical twilight zones of the world.

The USA is unlikely to be of much help to Europe as it reasserts the Monroe doctrine and attends to its growing Pacific and Asian preoccupations. It may assist the EU to cope with Russian (and to a lesser extent, Turkish) designs in the tremulously tectonic regions of the Caucasus, oil-rich and China-bordering Central Asia, and the Middle East. But it will not do so in Central Europe, in the Baltic, and in the Balkan.

In the long-run, Muslims are the natural allies of the

United States in its role as a budding Asian power, largely supplanting the former Soviet Union. Thus, the threat of militant Islam is unlikely to revive the West. Rather, it may create a new geopolitical formation comprising the USA and moderate Muslim countries, equally threatened by virulent religious fundamentalism. Later, Russia, China and India - all destabilized by growing and vociferous Muslim minorities - may join in.

Ludwig Wittgenstein would have approved. He once wrote that the spirit of "the vast stream of European and American civilization in which we all stand ... (is) alien and uncongenial (to me)".

The edifice of the "international community" and the project of constructing a "world order" rely on the unity of liberal ideals at the core of the organizing principle of the transatlantic partnership, Western Civilization. Yet, the recent intercourse between its constituents - the Anglo-Saxons (USA and UK) versus the Continentals ("Old Europe" led by France and Germany) - revealed an uneasy and potentially destructive dialectic.

The mutually exclusive choice seems now to be between ad-hoc coalitions of states able and willing to impose their values on deviant or failed regimes by armed force if need be - and a framework of binding multilateral agreements and institutions with coercion applied as a last resort.

Robert Kagan sums the differences in his book:

"The United States ... resorts to force more quickly and, compared with Europe, is less patient with diplomacy. Americans generally see the world divided between good and evil, between friends and enemies, while Europeans see a more complex picture. When confronting real or

potential adversaries, Americans generally favor policies of coercion rather than persuasion, emphasizing punitive sanctions over inducements to better behavior, the stick over the carrot. Americans tend to seek finality in international affairs: They want problems solved, threats eliminated ... (and) increasingly tend toward unilateralism in international affairs. They are less inclined to act through international institutions such as the United Nations, less likely to work cooperatively with other nations to pursue common goals, more skeptical about international law, and more willing to operate outside its strictures when they deem it necessary, or even merely useful.

Europeans ... approach problems with greater nuance and sophistication. They try to influence others through subtlety and indirection. They are more tolerant of failure, more patient when solutions don't come quickly. They generally favor peaceful responses to problems, preferring negotiation, diplomacy, and persuasion to coercion. They are quicker to appeal to international law, international conventions, and international opinion to adjudicate disputes. They try to use commercial and economic ties to bind nations together. They often emphasize process over result, believing that ultimately process can become substance."

Kagan correctly observes that the weaker a polity is militarily, the stricter its adherence to international law, the only protection, however feeble, from bullying. The case of Russia apparently supports his thesis. Vladimir Putin, presiding over a decrepit and bloated army, naturally insists that the world must be governed by international regulation and not by the "rule of the fist".

But Kagan got it backwards as far as the European Union

is concerned. Its members are not compelled to uphold international prescripts by their indisputable and overwhelming martial deficiency. Rather, after centuries of futile bloodletting, they choose not to resort to weapons and, instead, to settle their differences juridically.

As Ivo Daalder wrote in a review of Kagan's tome in the New York Times:

"The differences produced by the disparity of power are compounded by the very different historical experiences of the United States and Europe this past half century. As the leader of the 'free world,' Washington provided security for many during a cold war ultimately won without firing a shot. The threat of military force and its occasional use were crucial tools in securing this success.

Europe's experience has been very different. After 1945 Europe rejected balance-of-power politics and instead embraced reconciliation, multilateral cooperation and integration as the principal means to safeguard peace that followed the world's most devastating conflict. Over time Europe came to see this experience as a model of international behavior for others to follow."

Thus, Putin is not a European in the full sense of the word. He supports an international framework of dispute settlement because he has no armed choice, not because it tallies with his deeply held convictions and values. According to Kagan, Putin is, in essence, an American: he believes that the world order ultimately rests on military power and the ability to project it.

It is this reflexive reliance on power that renders the United States suspect. Privately, Europeans regard

America itself - and especially the abrasive Bush administration - as a rogue state, prone to jeopardizing world peace and stability. Observing U.S. fits of violence, bullying, unilateral actions and contemptuous haughtiness - most European are not sure who is the greater menace: Saddam Hussein or George Bush.

Ivo Daalder:

"Contrary to the claims of pundits and politicians, the current crisis in United States-European relations is not caused by President Bush's gratuitous unilateralism, German Chancellor Gerhard Schröder's pacifism, or French President Jacques Chirac's anti-Americanism, though they no doubt play a part. Rather, the crisis is deep, structural and enduring."

Kagan slides into pop psychobabble when he tries to explore the charged emotional background to this particular clash of civilizations:

"The transmission of the European miracle (the European Union as the shape of things to come) to the rest of the world has become Europe's new mission civilisatrice ... Thus we arrive at what may be the most important reason for the divergence in views between Europe and the United States: America's power and its willingness to exercise that power - unilaterally if necessary - constitute a threat to Europe's new sense of mission."

Kagan lumps together Britain and France, Bulgaria and Germany, Russia and Denmark. Such shallow and uninformed caricatures are typical of American "thinkers", prone to sound-bytes and their audience's deficient attention span.

Moreover, Europeans willingly joined America in forcibly eradicating the brutal, next-door, regime of Slobodan Milosevic. It is not the use of power that worries (some) Europeans - but its gratuitous, unilateral and exclusive application. As even von Clausewitz conceded, military might is only one weapon in the arsenal of international interaction and it should never precede, let alone supplant, diplomacy.

As Daalder observes:

"(Lasting security) requires a commitment to uphold common rules and norms, to work out differences short of the use of force, to promote common interests through enduring structures of cooperation, and to enhance the well-being of all people by promoting democracy and human rights and ensuring greater access to open markets."

American misbehavior is further exacerbated by the simplistic tendency to view the world in terms of ethical dyads: black and white, villain versus saint, good fighting evil. This propensity is reminiscent of a primitive psychological defense mechanism known as splitting. Armed conflict should be the avoidable outcome of gradual escalation, replete with the unambiguous communication of intentions. It should be a last resort - not a default arbiter.

Finally, in an age of globalization and the increasingly free flow of people, ideas, goods, services and information - old fashioned arm twisting is counter-productive and ineffective. No single nation can rule the world coercively. No single system of values and preferences can prevail. No official version of the events can survive the onslaught of blogs and multiple news reporting. Ours is a

heterogeneous, dialectic, pluralistic, multipolar and percolating world. Some like it this way. America clearly doesn't.

Work Ethic

"When work is a pleasure, life is a joy! When work is a duty, life is slavery."

Maxim Gorky (1868-1936), Russian novelist, author, and playright

Airplanes, missiles, and space shuttles crash due to lack of maintenance, absent-mindedness, and pure ignorance. Software support personnel, aided and abetted by Customer Relationship Management application suites, are curt (when reachable) and unhelpful. Despite expensive, state of the art supply chain management systems, retailers, suppliers, and manufacturers habitually run out of stocks of finished and semi-finished products and raw materials. People from all walks of life and at all levels of the corporate ladder skirt their responsibilities and neglect their duties.

Whatever happened to the work ethic? Where is the pride in the immaculate quality of one's labor and produce?

Both dead in the water. A series of earth-shattering social, economic, and technological trends converged to render their jobs loathsome to many - a tedious nuisance best avoided.

1. ***Job security*** is a thing of the past. Itinerancy in various McJobs reduces the incentive to invest time, effort, and resources into a position that may not be yours next week. Brutal layoffs and downsizing traumatized the workforce and produced in the typical workplace a culture of obsequiousness, blind obeisance, the suppression of

independent thought and speech, and avoidance of initiative and innovation. Many offices and shop floors now resemble prisons.

2. ***Outsourcing and offshoring*** of back office (and, more recently, customer relations and research and development) functions sharply and adversely effected the quality of services from helpdesks to airline ticketing and from insurance claims processing to remote maintenance. Cultural mismatches between the (typically Western) client base and the offshore service department (usually in a developing country where labor is cheap and plenty) only exacerbated the breakdown of trust between customer and provider or supplier.

3. The populace in developed countries are addicted to ***leisure time***. Most people regard their jobs as a necessary evil, best avoided whenever possible. Hence phenomena like the permanent temp - employees who prefer a succession of temporary assignments to holding a proper job. The media and the arts contribute to this perception of work as a drag - or a potentially dangerous addiction (when they portray raging and abusive workaholics).

4. The other side of this dismal coin is ***workaholism*** - the addiction to work. Far from valuing it, these addicts resent their dependence. The job performance of the typical workaholic leaves a lot to be desired. Workaholics are fatigued, suffer from ancillary addictions, and short attention spans. They frequently abuse substances, are narcissistic and destructively competitive (being driven, they are incapable of team work).

5. The ***depersonalization of manufacturing*** - the intermediated divorce between the artisan/worker and his client - contributed a lot to the indifference and alienation

of the common industrial worker, the veritable "anonymous cog in the machine".

Not only was the link between worker and product broken - but the bond between artisan and client was severed as well. Few employees know their customers or patrons first hand. It is hard to empathize with and care about a statistic, a buyer whom you have never met and never likely to encounter. It is easy in such circumstances to feel immune to the consequences of one's negligence and apathy at work. It is impossible to be proud of what you do and to be committed to your work - if you never set eyes on either the final product or the customer! Charlie Chaplin's masterpiece, "Modern Times" captured this estrangement brilliantly.

6. Many former employees of mega-corporations abandon the rat race and establish their own businesses - ***small and home enterprises***. Undercapitalized, understaffed, and outperformed by the competition, these fledging and amateurish outfits usually spew out shoddy products and lamentable services - only to expire within the first year of business.

7. Despite decades of advanced notice, ***globalization*** caught most firms the world over by utter surprise. Ill-prepared and fearful of the onslaught of foreign competition, companies big and small grapple with logistical nightmares, supply chain calamities, culture shocks and conflicts, and rapacious competitors. Mere survival (and opportunistic managerial plunder) replaced client satisfaction as the prime value.

8. The decline of the ***professional guilds*** on the one hand and the trade unions on the other hand greatly reduced worker self-discipline, pride, and peer-regulated quality

control. Quality is monitored by third parties or compromised by being subjected to Procrustean financial constraints and concerns.

The investigation of malpractice and its punishment are now at the hand of vast and ill-informed bureaucracies, either corporate or governmental. Once malpractice is exposed and admitted to, the availability of malpractice insurance renders most sanctions unnecessary or toothless. Corporations prefer to bury mishaps and malfeasance rather than cope with and rectify them.

9. The quality of one's work, and of services and products one consumed, used to be guaranteed. One's personal idiosyncrasies, eccentricities, and problems were left at home. Work was sacred and one's sense of self-worth depended on the satisfaction of one's clients. You simply didn't let your personal life affect the standards of your output.

This strict and useful separation vanished with the rise of the malignant-narcissistic variant of ***individualism***. It led to the emergence of idiosyncratic and fragmented standards of quality. No one knows what to expect, when, and from whom. Transacting business has become a form of psychological warfare. The customer has to rely on the goodwill of suppliers, manufacturers, and service providers - and often finds himself at their whim and mercy. "The client is always right" has gone the way of the dodo. "It's my (the supplier's or provider's) way or the highway" rules supreme.

This uncertainty is further exacerbated by the pandemic eruption of mental health disorders - 15% of the population are severely pathologized according to the latest studies. Antisocial behaviors - from outright crime

to pernicious passive-aggressive sabotage - once rare in the workplace, are now abundant.

The ethos of teamwork, tempered collectivism, and collaboration for the greater good is now derided or decried. Conflict on all levels has replaced negotiated compromise and has become the prevailing narrative. Litigiousness, vigilante justice, use of force, and "getting away with it" are now extolled. Yet, conflicts lead to the misallocation of economic resources. They are non-productive and not conducive to sustaining good relations between producer or provider and consumer.

10. ***Moral relativism*** is the mirror image of rampant individualism. Social cohesion and discipline diminished, ideologies and religions crumbled, and anomic states substituted for societal order. The implicit contracts between manufacturer or service provider and customer and between employee and employer were shredded and replaced with ad-hoc negotiated operational checklists. Social decoherence is further enhanced by the anonymization and depersonalization of the modern chain of production (see point 5 above).

Nowadays, people facilely and callously abrogate their responsibilities towards their families, communities, and nations. The mushrooming rate of divorce, the decline in personal thrift, the skyrocketing number of personal bankruptcies, and the ubiquity of venality and corruption both corporate and political are examples of such dissipation. No one seems to care about anything. Why should the client or employer expect a different treatment?

11. The ***disintegration of the educational systems*** of the West made it difficult for employers to find qualified and motivated personnel. Courtesy, competence, ambition,

personal responsibility, the ability to see the bigger picture (synoptic view), interpersonal aptitude, analytic and synthetic skills, not to mention numeracy, literacy, access to technology, and the sense of belonging which they foster - are all products of proper schooling.

12. ***Irrational beliefs***, pseudo-sciences, and the occult rushed in to profitably fill the vacuum left by the crumbling education systems. These wasteful preoccupations encourage in their followers an overpowering sense of fatalistic determinism and hinder their ability to exercise judgment and initiative. The discourse of commerce and finance relies on unmitigated rationality and is, in essence, contractual. Irrationality is detrimental to the successful and happy exchange of goods and services.

THE AUTHOR

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Curriculum Vitae

Born in 1961 in Qiryat-Yam, Israel.

Served in the Israeli Defence Force (1979-1982) in training and education units.

Education

Graduated a few semesters in the Technion – Israel Institute of Technology, Haifa.

Ph.D. in Philosophy (major: Philosophy of Physics) – Pacific Western University, California, USA.

Graduate of numerous courses in Finance Theory and International Trading.

Certified E-Commerce Concepts Analyst by Brainbench.

Certified in Psychological Counselling Techniques by Brainbench.

Certified Financial Analyst by Brainbench.

Full proficiency in Hebrew and in English.

Business Experience

1980 to 1983

Founder and co-owner of a chain of computerized

information kiosks in Tel-Aviv, Israel.

1982 to 1985

Senior positions with the Nessim D. Gaon Group of Companies in Geneva, Paris and New-York (NOGA and APROFIM SA):

– Chief Analyst of Edible Commodities in the Group's Headquarters in Switzerland
– Manager of the Research and Analysis Division
– Manager of the Data Processing Division
– Project Manager of the Nigerian Computerized Census
– Vice President in charge of RND and Advanced Technologies
– Vice President in charge of Sovereign Debt Financing

1985 to 1986

Represented Canadian Venture Capital Funds in Israel.

1986 to 1987

General Manager of IPE Ltd. in London. The firm financed international multi-lateral countertrade and leasing transactions.

1988 to 1990

Co-founder and Director of "Mikbats-Tesuah", a portfolio management firm based in Tel-Aviv.

Activities included large-scale portfolio management, underwriting, forex trading and general financial advisory services.

1990 to Present

Freelance consultant to many of Israel's Blue-Chip firms,

mainly on issues related to the capital markets in Israel, Canada, the UK and the USA.

Consultant to foreign RND ventures and to governments on macro-economic matters.

Freelance journalist and analyst for various media in the USA.

1990 to 1995

President of the Israel chapter of the Professors World Peace Academy (PWPA) and (briefly) Israel representative of the "Washington Times".

1993 to 1994

Co-owner and Director of many business enterprises:

– The Omega and Energy Air-Conditioning Concern

– AVP Financial Consultants

– Handiman Legal Services – Total annual turnover of the group: 10 million USD.

Co-owner, Director and Finance Manager of COSTI Ltd. – Israel's largest computerized information vendor and developer. Raised funds through a series of private placements locally in the USA, Canada and London.

1993 to 1996

Publisher and Editor of a Capital Markets Newsletter distributed by subscription only to dozens of subscribers countrywide.

In a legal precedent in 1995 – studied in business schools and law faculties across Israel – was tried for his role in an attempted takeover of Israel's Agriculture Bank.

Was interned in the State School of Prison Wardens. Managed the Central School Library, wrote, published and lectured on various occasions.
Managed the Internet and International News Department of an Israeli mass media group, "Ha-Tikshoret and Namer".
Assistant in the Law Faculty in Tel-Aviv University (to Prof. S.G. Shoham).

1996 to 1999

Financial consultant to leading businesses in Macedonia, Russia and the Czech Republic.
Economic commentator in "Nova Makedonija", "Dnevnik", "Makedonija Denes", "Izvestia", "Argumenti i Fakti", "The Middle East Times", "The New Presence", "Central Europe Review", and other periodicals, and in the economic programs on various channels of Macedonian Television.
Chief Lecturer in Macedonia in courses organized by the Agency of Privatization, by the Stock Exchange, and by the Ministry of Trade.

1999 to 2002

Economic Advisor to the Government of the Republic of Macedonia and to the Ministry of Finance.

2001 to 2003

Senior Business Correspondent for United Press International (UPI).

Web and Journalistic Activities

Author of extensive Web sites in:

– Psychology ("Malignant Self Love") – An Open Directory Cool Site,

– Philosophy ("Philosophical Musings"),

– Economics and Geopolitics ("World in Conflict and Transition").

Owner of the Narcissistic Abuse Study List and the Abusive Relationships Newsletter (more than 6000 members).

Owner of the Economies in Conflict and Transition Study List, the Toxic Relationships Study List, and the Link and Factoid Study List.

Editor of mental health disorders and Central and Eastern Europe categories in various Web directories (Open Directory, Search Europe, Mentalhelp.net).

Editor of the Personality Disorders, Narcissistic Personality Disorder, the Verbal and Emotional Abuse, and the Spousal (Domestic) Abuse and Violence topics on Suite 101 and Bellaonline.

Columnist and commentator in "The New Presence", United Press International (UPI), InternetContent, eBookWeb, PopMatters, "Global Politician", eBookNet, and "Central Europe Review".

Publications and Awards

"Managing Investment Portfolios in States of Uncertainty", Limon Publishers, Tel-Aviv, 1988

"The Gambling Industry", Limon Publishers, Tel-Aviv, 1990
"Requesting My Loved One – Short Stories", Yedioth Aharonot, Tel-Aviv, 1997
"The Suffering of Being Kafka" (electronic book of Hebrew and English Short Fiction), Prague and Skopje, 1998-2004
"The Macedonian Economy at a Crossroads – On the Way to a Healthier Economy" (dialogues with Nikola Gruevski), Skopje, 1998
"The Exporters' Pocketbook", Ministry of Trade, Republic of Macedonia, Skopje, 1999
"Malignant Self Love – Narcissism Revisited", Narcissus Publications, Prague and Skopje, 1999-2007
The Narcissism Series (e-books regarding relationships with abusive narcissists), Skopje, 1999-2007
"After the Rain – How the West Lost the East", Narcissus Publications in association with Central Europe Review/CEENMI, Prague and Skopje, 2000
Winner of numerous awards, among them Israel's Council of Culture and Art Prize for Maiden Prose (1997), The Rotary Club Award for Social Studies (1976), and the Bilateral Relations Studies Award of the American Embassy in Israel (1978).
Hundreds of professional articles in all fields of finances and the economy, and numerous articles dealing with geopolitical and political economic issues published in

both print and Web periodicals in many countries.
Many appearances in the electronic media on subjects in philosophy and the sciences, and concerning economic matters.

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